# The AMERICAN SHORTHAND TEACHER

A Magazine for Teachers of Shorthand and Other Commercial Subjects

Issued Monthly (except July and August) by The Gregg Publishing Company, 270 Madison Avenue, New York, N. Y.

Subscription rates: One dollar, the year; ten cents, the copy—subject to current postage and customs charges when mailed to countries to which the United States domestic postage rate does not apply.

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Vol. XIII

April, 1933

No. 8

# Organization of Material for Teaching Shorthand by the Direct Method

By Ann Brewington

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TN 1921 Mr. Gregg addressed the Eastern Commercial Teachers' Association on the subject of "Making Shorthand Teaching Effective." At that time he said, "Teach students to write shorthand rapidly and accurately from the first instead of teaching them to write shorthand slowly and carefully." Ever since that time teachers have been attempting to construct material that would accomplish two objectives at the same time: (1) impel students by the nature of its content to write rapidly and accurately from the beginning; (2) express thoughts in a vocabulary commensurate with the intellectual level of the students. This article deals with the progress made with respect to (1)

principles of organization underlying the construction of teaching material, and (2) teaching techniques involved in the direct method.

### Underlying Principles of Organization

Principles of organization underlying the construction of teaching material must be based on a definition of shorthand, the contribution shorthand makes to a learner, the effect of sizes of units on organization, and methods of selecting subject matter and vocabulary. Each of these points will be considered in the order named.

Shorthand is defined as a means of rapid writing. It is a device for getting and re-

cording thought accurately. It serves as a means of transporting thought very much as the automobile serves as a means of rapidly transporting material goods. When a learner masters shorthand, he acquires a distinctive ability which he cannot acquire through any other subject in the present curriculum. It should be noticed that this definition does not differentiate shorthand from other forms of handwriting, such as longhand, abbreviated longhand, and printing, and all forms of writing involving the use of a machine. The following definition does make such differentiation: Shorthand is a form of handwriting involving the use of arbitrary symbols which facilitate and expedite the reading and writing processes.

# Shorthand Makes Distinctive Contribution to Learner

What is it that the learner gets as a result of his studying shorthand that he does not get from any other subject? One answer is a trained memory, increased concentration, enlivened mental faculties, better judgment, more culture, and many other such things. Such an answer may have been adequate back in the days when we preached and believed the gospel of formal discipline, but it is wholly inadequate today. These things may be by-products, but they are certainly not the real product. They may possibly constitute a small contribution that shorthand makes to the curriculum, but they do not constitute the distinctive contribution. When it is held that the distinctive contribution of shorthand is training the high school student, eighteen years of age or under, for a vocation, we are exemplifying monumental faith in cold-storage education. Statistics showing to what extent shorthand is really functioning as a vocation for such students are sufficiently adequate to substantiate the statement. The distinctive contribution that shorthand makes to a learner is training in rapid writing. Shorthand is a device to be used in getting and recording thought accurately and rapidly. The real learning product is the ability to get and record thought accurately and rapidlynothing more, nothing less. Such cannot be said of any other subject in the high school curriculum except typewriting. The accuracy and validity of the statement stands the test of analysis. Getting the thought emphasizes seeing, hearing, understanding, comprehending. Recording emphasizes writing. In order to use shorthand as a means of getting and recording thoughts accurately and rapidly, the learner must acquire the ability

Read shorthand meaningfully, accurately, and rapidly in terms of ideas.

Write shorthand comprehendingly, accurately, rapidly, in terms of ideas.

Take dictation comprehendingly, accurately, rapidly, in terms of ideas.

Transcribe dictation comprehendingly, accurately, rapidly in terms of ideas.

Understand the fundamental principles of

the system studied.

Where in the educational process does a learner need a means of rapid writing? Where in the educational process is shorthand necessary or desirable in order to simplify, expedite, integrate everyday living for learners as consumers and for learners as producers? Could the learning process in the elementary grades be simplified if the learner were permitted to use a simplified form of writing rather than the exceedingly intricate form he is now compelled to master? To what extent does an exceedingly intricate form of writing actually retard the thinking process? These questions should be answered not only in the elementary-grade level but also at all educational levels. Today, these answers remain in the realm of opinion, with some psychologists and educationists laughing at the idea, while others are hazarding the guess that the question is of real significance. Scientific investigations in the field of reading have materially simplified, expedited, and integrated the learning process. Similar results are being obtained from scientific investigations of the learning process involved in acquiring a concept of number. Fashions in handwriting, such as the vertical and the Spencerian, have served to retard investigations of the learning process involved in our present form of longhand writing. However, investigations of Mr. Frank Freeman indicate that the learning process is very much

### Sizes of Various Units Affect Organization

Teaching material should be so organized as to economize time and energy in the learning process. The significance of that principle in learning shorthand is evidenced by the various organizations of the shorthand systems studied today. The first teaching materials were logical presentations of the systems. For much too long a time no other organization was available, and supplementary materials were conspicuous by their scarcity. Teachers were teachers of organized bodies of knowledge rather than teachers of immature minds. All too gradually the logical organization gave way to the psychological organization.

"To present to the immature mind subject matter in the form in which it may be most readily employed by experts is obviously absurd. . . . The logical method of presentation must give way to the psychological mode of approach. In the initial stages one is not so much a teacher of organized bodies of knowledge as a teacher of immature minds. The psychological will lead to the logical, or it is worthless; but the manner of approach and the general organization of the material of instruction using the method will differ considerably from that employed in the strict logical presentation." <sup>1</sup>

Mr. Gregg has given this principle of organization serious consideration, as is evidenced by the various editions of the Gregg

Manual, the Junior High School Manual, Frick's "Analytical Lessons in Gregg Shorthand," and the great amount of teaching material available at the present time. All of these organizations are experimental in nature, pending further scientific study to determine the order in which the principles can be learned with greatest economy, and the sizes of learning units in which those principles should be embodied. One illustration will serve to clarify what is meant by the order in which the principles can be learned with greatest economy-that of separating the presentation

of o and oo into Units 4 and 7, respectively. In order to determine the size of the learning unit in which the principles should be embodied, teaching materials have been organized using the shorthand symbol, the word, writing direction and movement, and discourse as the basic learning units.

Little economy in the learning process results from using the shorthand symbol or the word as the \*basic learning unit. Even though the symbol or the word be arranged in order of relative frequency, the learning unit remains too small to permit continuous, rapid writing. The so-called sentence method has resulted from attempts to avoid the waste inuring from such a small learning unit. As a matter of fact, the term should be "sentence organization" rather than "sentence method."

Considerable economy results in the learning process from using writing direction and movement as the basic learning unit. The outstanding piece of work in Gregg shorthand

using writing direction and movement as the learning unit is that of Mrs. Minnie Demotte Frick in her "Analytical Lessons in Gregg Shorthand." "The rules as given are laws of movement rather than laws of formation, as they are commonly stated. . . . This book is arranged with the express purpose of dispensing with rules requiring knowledge of formation in the beginning work, and of substituting therefor laws of continuous motion." <sup>2</sup>

Considerable economy in the learning process results from utilizing discourse or thought

content as the basic learning unit. First attempts in the organization of teaching material produced lists of sentences containing words exemplifying the principle to be learned. The use of the sentence as the learning unit marks one of the most important stages in the organization of teaching material. It exposed fallacious interpretations of the laws of habit formation, and revealed the futility of organization which presented the operation of the law of initial diffused movement and the laws of imagination. It afforded opportunity for studying the effects of various

sizes of the learning unit and encouraged increasing the size of the learning unit to the paragraph containing thought content. The thought-content unit made it possible (1) to construct material in which thoughts are expressed in a vocabulary commensurate with the intellectual level of the learner, and (2) to build a teaching technique which would impel learners because of the nature of the content to write rapidly and accurately from the beginning.

# Methods of Selecting Subject Matter and Vocabulary

Organization of teaching materials in which discourse or thought content is used as the basic learning unit involves determination of the chronological age of the learner and the educational level at which he is studying shorthand; the thought content to be conveyed to the learner; the vocabulary used in

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from State Teachers College,

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received her Master's degree from the School of Commerce and Administration, The University of Chicago, in 1922. Before joining

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of years Supervisor of Commer-

cial Education for the state of

tical business experience as well,

holding a position as office man-

ager for two years. She is very

active in commercial education as-

sociations and is past-president of

the National Association of Com-

mercial Teacher Training Insti-

-Editor

tutions.

Miss Brewington has had prac-

<sup>&</sup>lt;sup>1</sup>Chapman, J. C. and Counts, George S., PRINCIPLES OF EDUCATION. Houghton Mifflin, 1924; p. 547.

<sup>\*</sup>Frick, Minnie Demotte, Analytical Lessons in Gregg Shorthand. Gregg Publishing Company, 1924; p. 2.

conveying the thought content; the degree of repetition of words in the vocabulary; and the order in which the principles of the shorthand system should be presented. The intellectual level of the learner is the component element upon which all four of the other elements are dependent. The other four are not named here in the order of their importance nor in the order in which they have been considered important by writers of thought-content material. A citation of material will clarify the point. The discourse or thought-content unit has been selected and arranged in terms of (1) Subject matter such as is permitted through the use of vocabulary restricted to the order of the lessons in the Manual-Hunter's "Graded Readings in Gregg Shorthand"; (2) Educational and interesting subject matter permitted through the use of vocabulary restricted to the most frequent words of the English language-Swem's "Intensive Exercises in Shorthand Vocabulary Building"; (3) Subject matter selected and arranged on the basis of interest of learner-McCredie's "Primer for Munson Shorthand"; (4) Subject matter selected to convey particular thought content expressed in a vocabulary commensurate with the intellectual level of the student-Brewington and Soutter, "Direct Method Material for Gregg Shorthand."

Inasmuch as most teachers are familiar with the first three named, I shall discuss only the last named.

### Direct Method Material for Gregg Shorthand

The materials are organized into twelve chapters according to the units in the Anniversary Edition of the Gregg Manual. Each unit, except Unit 36, contains articles and letters. All articles and letters were con-

structed according to the following guiding principles:

- 1. All material must be of the thought-content level of a senior high school or junior college student. In order to maintain this thought-content level, a minimum number of words may be arbitrarily used, just as three forms are arbitrarily assigned to certain units in the Manual!
- 2. The vocabulary must be restricted to the ten thousand most common words, exclusive of proper names, with at least 75 per cent of the words selected from the first five thousand of the most common words in the early units.

3. At least 10 per cent of the running words must be words teaching principles in the unit.

 Approximately 75 per cent of the running words should afford drill on principles in the preceding units.

5. Not more than 8 per cent of the running words may be words introduced from advance units, as previews. All words introduced as previews of advance units must be words for which all of the outline that is written is complete and understandable from principles already studied, or must be found in the Shorthand Manual, Gregg Speed Studies, Five Thousand Most-Used Shorthand Forms, or Hunter's Graded Readings.

The subject matter of the articles and the letters is based upon the findings of specialists who have taught and worked with the materials in high school classes, college classes, and research courses during a period of five years. Inasmuch as traits and attitudes are as essential as technical skill for a successful secretary or stenographer, 40 per cent of the materials contains specific suggestions as to how these desirable traits and attitudes are acquired. General business information and general economic information a secretary must possess constitute approximately 60 per cent of the material. trait materials are based upon Charters and Whitley's "Analysis of Secretarial Duties and Traits." The vocabulary is selected from Horn's "Basic Writing Vocabulary," and Thorndike's "Teachers' Word Book."

[In the May issue Miss Brewington continues with details of this new Direct Method Material.]

### ABOUT THE NEW TEACHING PLAN FOR-CHAPTERS X to XII

Since the publication in the March issue of the announcement of a new teaching plan for Chapters X to XII of the Gregg Shorthand Manual, it has been decided to expand this plan into a monograph, thus deferring the date of publication. In order that theory teachers may have the benefit of the plan immediately, it is presented in brief form in this issue (see page 339).

The monograph will contain, in addition to the outline given in this issue, the following contents:

A selected vocabulary preview for each letter and article in Gregg Speed Studies X to XX.

An index showing the chapters in which motivated drills are given on each prefix and suffix of Chapters X and XI.

A series of sixty prefix and suffix word lists, containing over 1,800 words, for use

as source material for the motivated drills called for in the teaching outline. The frequency of each word will also be given.

An alphabetical index of all prefix and suffix words used in the dictation material of Gregg Speed Studies X to XX, with the letter or article reference number for each occurrence.

### Program of the

# Eastern Commercial Teachers' Association

Wardman Park Hotel, Washington, D. C., April 13, 14, 15, 1933

### Thursday Morning and Afternoon

Registration

Tours around Washington

Golf Tournament

### Thursday Evening

OPENING SESSION

Address of Welcome by Dr. Frank W. Ballon, Superintendent of Schools. Washington, D. C. Response by Earl W. Barnhart, Chief, Commercial Education Service, Federal Board for Vocational Education, Washington, D. C.

President's Annual Address by Alexander S. Massell, Principal, Central Continuation School, New York, New York

"Principles Underlying the Layout and Equipment of a Commercial School," by Dr. Allan Davis,
Principal, Roosevelt High School, Washington, D. C.

"The Pedagogical Evaluation of Teaching Devices," by Earl W. Barnhart
Informal Dance

### Friday Morning

STENOGRAPHY SECTION

10 то 11 о'сьоск

Under the direction of D. D. Lessenberry-Mrs. M. H. Ely, Margaret Morrison School, Carnegie Institute of Technology, Pittsburgh, Pennsylvania, Chairman

"Motivating the Writing of Shorthand through the Use of Motion Pictures," by Eleanor Skimin, Northern High School, Detroit, Michigan
"The Use of the Organization Chart in Teaching Shorthand," by Dr. Paul S. Lomas, New York University School of Education, New York, New York
"Report of the Committee on the Collecting and Evaluating of Teaching Devices," by Ethel Rollinson, Columbia University, New York, New York

BOOKKEEPING SECTION

10 то 11 о'сьоск

Under the direction of W. E. Douglass—G. G. Hill, State Teachers College, Indiana, Pennsylvania, Chairman

"Devices and Methods for Checking Work in Bookkeeping," by Hastings Hawkes, Dean, Becker College, Worcester, Massachusetts
"A Device for Correcting Business Practice Sets," by Henry Smithline, Grover Cleveland High School,

New York, New York "Teaching Devices for Practice Sets," by H. A. Andruss, State Teachers College, Bloomsburg,

Pennsylvania

10 to 11 o'clock

BUSINESS ENGLISH SECTION Under the direction of D. D. Lessenberry-Katherine W. Ross, Boston Clerical School Boston, Massachusetts, Chairman

"The Use of the Paragraph in the Teaching of Commercial English," by Lucy S. McCarty, Schenley High School, Pittsburgh, Pennsylvania
"Extracurricular Activities as Source Material for Problem Work in Letter Writing," by Dr. Charles A. Reigner, President, H. M. Rowe Company, Baltimore, Maryland Address, by Selma Borchardt, Roosevelt High School, Washington, D. C.

COMMERCIAL LAW SECTION

10 то 11 о'сьоск

Under the direction of Catherine Nulty-Nathaniel Altholz, Director of Commercial Education, New York, New York, Chairman

"Devices Used in Teaching Sease," by C. O. Thompson, Mount Vernon High School, Mount Vernon, New York

"A Comparative Device for Teaching Contracts and Negotiable Instruments," by E. L. Cooper, New York State College for Teachers, Albany, New York

"The Workbook Device in Teaching Commercial Law," by Bernard Forcey, Principal, Lansford High School, Lansford, Pennsylvania

OFFICE PRACTICE SECTION

Typewriting Section

10 то 11 о'сьоск

Under the direction of Walter E. Leidner-George L. Hoffacker, Boston Clerical School, Boston, Massachusetts, Chairman

"A Method for Teaching Office Machines," by Mary Cahill, Julia Richman High School, New York, New York

"Making the Most Efficient Use of Time and Machines in Office Practice," by Ralph W. March, Girard College, Philadelphia, Pennsylvania
"The Bursar's Office as an Office Practice Laboratory," by Frank J. Meredith, Montclair High School,

Montclair, New Jersey

11:10 то 12:10 о'сьоск

Catherine Nulty, University of Vermont, Burlington, Vermont, Director, presiding

"Some Devices Used in Transcription," by Mildred Shaffer, Bryant and Stratton College, Baltimore, Maryland

Maryland
"A Device for Teaching Ruling on the Typewriter," by Wallace B. Bowman, New Rochelle High School,
New Rochelle, New York
"The Development and Teaching Results on the Simplified Keyboard," by Gertrude Ford, University of
Washington, Seattle, Washington

11:10 то 12:10 о'сьоск

ARITHMETIC SECTION ouis A. Rice-J. Leslie Bowling, Strayer College, Washington, D. C., Chairman Under the direction of Louis A. Rice-

"A Device for Teaching the Four Fundamental Processes," by P. Meyer Heiges, Central High School, Newark, New Jersey

- "The Use of the Slide Rule in Commercial Arithmetic," by W. R. Kiddoo, Goldey College, Wilming-
- "Calculating Machines in the Teaching of Business Arithmetic," by Dr. John J. W. Neuner, College of the City of New York
- JUNIOR BUSINESS TRAINING
  - 11:10 то 12:10 о'сьоск
  - Under the direction of Louis A. Rice-William L. Einolf, University of Pennsylvania, School of Education, Philadelphia, Pennsylvania, Chairman
  - "Organizing the Classroom as a Business Office," by Mrs. R. I. Crooker, Junior High School, Sum-

  - "Organizing the Classroom as a Business Office, by Mrs. K. I. Crooker, Junior Figu School, Summit, New Jersey
    "The Commercial Shop in Prevocational Training," by C. B. Edgeworth, Supervisor of Commercial Education, Baltimore, Maryland
    "The Use of Slides in the Teaching of Elementary Business Education," by Juvenilia Caseman, Hutchinson High School, Buffalo, New York
    "Posters as Aids in Teaching Elementary Business Education," by Wilmer K. Bond, Stetson Junior High School, Philadelphia, Pennsylvania
- SALESMANSHIP SECTION 11:10 то 11:40 о'сьоск
  - Under the direction of W. E. Douglass-R. G. Walters, Grove City College, Grove City, Pennsylvania, Chairman
  - "What Teaching Aids and Devices Can Be Used in Salesmanship," by L. W. Korona, Taylor Allderdice High School, Pittsburgh, Pennsylvania
  - "Modern Services for Teaching Salesmanship," by Bernard Shilt, Hutchinson High School, Buffalo, New York

### Friday Afternoon and Evening

- Visitation of rooms at the Roosevelt High School specially fitted up for the teaching of commercial subjects. In connection with these visits there will be a discussion of equipment and its arrangement jects. In connection with the in the various rooms visited.
- Visit to Congress and Government Buildings Tours around Washington Social Activities

### Saturday

Convention Breakfast and Business Meeting

Election of Officers

Trips to Mount Vernon and other places of interest

Annual Association Banquet



# Program for the Coming Meeting

### Canadian Gregg Association

Royal York Hotel, Toronto, Ontario, Saturday, April 22, 1933

### Morning Session

(9 to 12 o'clock)

- President's Address, by A. J. Park, Principal, Park Business College, Hamilton Appointment of Committees "Secretarial Training," by Miss M. F. McKenzie, Principal, Shaw's Deer Park School, Toronto
- "The Profession of Accountancy," by Austin H. Carr, C.A., M.A., Secretary, Dominion Association of Chartered Accountants, Toronto, and former Director of Extension Work, and Lecturer, Queen's University. A commercial teacher of experience, and the first Principal of Calgary Commercial High School
- "Important Factors in Shorthand Teaching," by Hubert A. Hagar, General Manager, The Gregg Publishing Company, New York City

### "Get Acquainted" Period and Luncheon

Luncheon Address, by Dr. John Robert Gregg "The Money Muddle," by W. A. Irwin, Associate Editor, MacLean's Magazine, Toronto

### Afternoon Session

(2:30 to 5 o'clock)

- "Banking the Fire," by Clyde Insley Blanchard, Director of Research, The Gregg Publishing Company, New York City
- "The Teaching of Typewriting," by Irma Wright, School Department, United Typewriter Company, Toronto; former World's Amateur Champion Typist, and present Canadian Champion
- Discussion, opened by B. H. Hewitt, B.A., Northern Vocational School, Toronto

Business Meeting

Adjournment

# E. C. T. A. to Honor Former President

Will Be Awarded Association's Medal at Annual Banquet April 15

It is the policy of the E. C. T. A. to bring the importance of business education to the attention of the nation by honoring certain members of its profession who have made outstanding contributions. The first commercial educator to be thus recognized was Dr. John Robert Gregg, who was the guest of honor at the annual meeting in Bos-

ton in 1931. Dr. Paul S. Lomax, of New York University, will be guest of honor at this year's banquet, and will be awarded the second medal to be presented by this Association.

# Professional Services of Doctor Lomax

We are indebted to Mr. Massell for the following description of Dr. Lomax's professional service and contributions on which the award is based:

He is now president of the Department of Business Education of the National Education Association, and has been president of the Eastern Commercial Teachers' Association, National Association of Commercial Teacher-

Training Institutions, and New York City Gregg Teachers' Association. He is at present a member of the executive committee of the National Association of Commercial Teacher-Training Institutions, as well as chairman of that association's Research Commission on the Education of Business Teachers.

He has conducted several city surveys of business education, and has served as lecturer at a number of colleges and universities.

### Well Known Also as Author and Editor

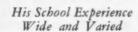
He initiated the Yearbook Program of the Eastern Commercial Teachers' Association, and served as editor of the 1928, 1929, and 1930 yearbooks; last fall he also initiated the National Business Education Quarterly of the N. E. A. Department of Business Education.

He is the author and joint-author of a number of books, including "Commercial Teaching

Problems," "Problems of Teaching Bookkeeping" (with Agnew), "Problems of Teaching Elementary Business Training" (with Haynes), "Problems of Teaching Economics" (with Tonne), "Problems of Teaching Shorthand" (with Walsh), "Teaching Principles and Procedures for Gregg Shorthand" (with Skene and Walsh), and a chapter in "Teaching

Business Subjects in the Secondary School'' (edited by Jones).

He has been the editor of the Journal of Business Education since 1929, and is a contributing editor of Junior-Senior High School Clearing House and of the Journal of Educational Sociology. He has contributed many articles to other magazines, and has been a speaker on the programs of numerous conventions.



Present position is as Professor of Education and Chairman of Department of Business Education of the New York University School of Education, New York

City. The business teacher training program of the School of Education was organized in 1924 under the immediate responsibility of Dr. Lomax, and has grown from 18 students majoring in that work in 1924 to 822 during the first semester of the school year 1932-1933.

His school experience previous to going to New York University had been as follows: 1921-1924, city director of Business Education, Trenton, New Jersey; 1920-1921, supervisor of commercial education, New York State Department of Education; 1919-1920, special agent in commercial education, Federal Board for Vocational Education; 1916-1918, director, Department of Commerce, New Mexico Normal University, Las Vegas; 1914-1916, parttime instructor and supervisor of commercial subjects, University of Missouri High School; 1910-1913, head of Commercial Department, Brookfield and Hannibal, Missouri, high schools.



Dr. Paul S. Lomax

Department of Business Education
Chairman, New York University
School of Education

# Results of the Teachers' Medal Test

By Florence E. Ulrich

Editor, Gregg Writer Art and Credentials Department, New York City

THE annual "convention" of teachers for the examination and discussion of shorthand notes, which just took place, was well attended, with nearly every state in the Union represented and some of the foreign countries as well! Many new teachers introduced themselves and, happily, you too may meet many of them in these columns of awards. We were glad to see so many familiar names and to welcome the many newcomers. We are proud of the work you did on this Test, and of the professional interest you have shown in the development of a writing skill that will better enable you to teach the technique of shorthand writing to your pupils!

### All the Way Up!

These specimens ran the gamut of quality from the peak of excellence to the poorest writing—for a teacher. The varying degrees of style were, we are inclined to believe, due as much to method of preparation, frequently hurried and faulty, with not enough attention given either to the writing of the copy or the instruments used, as to knowledge of what constitutes good notes. By far the greatest number of specimens put their writers in the tantalizing category of those who, the committee repeatedly exclaimed, can write if they want to! These teachers could easily write an expert and often a beautiful style if they would devote enough time to analysis of their notes, eliminating the faults that are found in them! We ask you if that is not a provoking situ-

### Stumbling Blocks

Some of the faults were not so serious in themselves, but the persistence with which they occurred in the copy showed that the writer did not know what constituted the correct form—had not fully mastered the technique of a good style. Such specimens, naturally, did not rate the medal awards, nor even the certificate awards if the fault was of a serious nature. Sometimes it was the faulty execution of f and v, r or l, or both; improper joining of circles and failure to make the large circles of sufficient size to differentiate them clearly from the small circles. Liberal, has been, trained, servant, clear, pleasure, gossamer, ready, operations, vigorous,

fire, education—these words test the skill of a writer and were the "keys" to his style. If they were handled well we found almost without exception that the specimen as a whole reflected a good degree of skill.

### Distinctive Seals for Proficiency Certificates

Because of the wide range of writing ability to be found in the certificate group—from specimens that fell just short of the medal standard to those slightly better than the O. G. A. Membership Certificate—we have this year divided the Proficiency Certificates into two classes. The Gold Seal class embraces those teachers who, in our opinion, can and ought to attain the medal standard of skill the next time. Many of the teachers in the Red Seal class will "jump" to the Gold Medal group next year, too; this has occurred in every test we have held up to this time. It can be done by anyone who will give the necessary attention to his notes.

### To Know Our Faults Is to Improve

The better to help those teachers who are desirous of attaining the medal standard of proficiency, we are returning all specimens this year with criticisms, except those of the Medal winners. A careful study and analysis of these papers will help those who earnestly wish to attain the expert style required for the Medal. In every instance we have called attention to the characteristic faults of the specimen. We did not attempt to analyze every outline-neither time nor the volume of tests received permitted it-but, if the teacher will study the criticisms made and analyze his own specimen, he will be able to determine for himself just how well his style rates with the standard required for the Teacher's Medal.

Specimens that did not rate high enough for an award failed to do so because of (1) lack of fluency and smoothness in execution. It is necessary to have a clear mental picture of what you are going to write and to have written it often enough to be able to execute it with a free, continuous writing movement; (2) the writer's having developed the characteristic of a scrawl, with not enough attention paid to correct formation of outlines. These are basic faults, and a specimen that reflects

them requires earnest attention from the teacher, whether it be in the writing of a pupil or of himself.

Granting that a specimen was written fairly fluently, the next predominant faults were of formation:

1. Incorrect writing of curves—l and r were written with hooks at the beginning in some instances, or were too shallow, or tipped down at the end. F's and v's were too shallow, not curved enough at the beginning, or tilted forward out of slant with the other characters.

2. Angles between the reversed curves kl

3. Hooks too wide.

4. Lack of smoothness and neatness in closing circles-they ought to be turned neatly in such joinings as education, clear, etc.

5. Lack of smoothness and uniformity of style in the specimen as a whole.

Most of the specimens submitted to us suffered from a too general criticism and not enough specific analysis of individual out-

Now, with that off our chest, let us turn to the Test itself. Los Angeles was represented with the greatest number of entries of any city in the United States. We have

long since lost count of the number of specimens we received from this city! If you do not believe the teachers put it "on the map" in quality, too, look at the awards lists-Gold Medals, Silver Medals, Certificatesthey have some of all!

Some previous gold medal winners could not resist the fun of entering again. We received specimens from Mr. Rude and Mr. Leatartsuch beautiful specimens that we wish we could reproduce them for all of you to see. We may have something further to say another time about these specimens.

From teachers in high schools, private schools, Catholic schools, normal schools, colleges and universities, specimens came, reflecting some very excellent work-we want you to know that, notwithstanding our critical harangue at the beginning of this article which, we insist upon your observing, is intended wholly and unqualifiedly for the purpose of helping those of you who repeatedly say that we can help you only if we tell you what is wrong with your notes.

Because we must not take up any more precious space in this magazine, we will now give you the names of the winners. The pictures of the Gold Medallists you will already have discovered in our frontispiece.

### Awards Made in the 1933 Teachers' Medal Test

### Gold Medals

Brother Gregorio, St. Gabriel's College, Samsen, Bangkok, Siam Helen B. Salisbury, Seneca Township High School, Seneca, Illinois

High School, Seneca, Illinois
Edith Peterson, Reed-Custer Township
High School, Braidwood, Illinois
Julia Christle, St. Joseph's College,
Emmitsburg, Maryland
Mathilde Bybuth, Evanston Township
High School, Evanston, Illinois
Thelma Markie, Jackson Business
University, Jackson, Michigan
Brother Joseph Lattner, Purcell High
School, Cincipnedi, Ohio.

School, Cincinnati, Ohio

Martha Glantz, Holdrege High School, Holdrege, Nebraska Irma Crowe, Agricultural and Mechan-

ical College, St'llwater, Oklahoma Maye C. Hylton, Agricultural and Mechanical College, Stillwater, Oklahoma

Perle Marie Parvis, Baraboo High School, Baraboo, Wisconsin Mame E. Goodell, James A. Garfield

High School, Los Angeles, California

Robert W. Messer, John Marshall High School, Los Angeles, California Green, Marseilles High

School, Marseilles, Illinois Adelaide Tonge, Woodbury Woodbury College, Los Angeles, California

### Silver Medals

Mary G. Schulkind Jackson, Huntington Park High School, Huntington Park, California

Beryl M. Huebener, Huntington Park High School, Huntington Park, Cal-

Eva M. Jessup, Franklin High School, Los Angeles, California

C. J. Arrigo, Smithdeal-Massey Busi-

ness College, Richmond, Virginia Olin R. Gresham, Moorcroft High School, Moorcroft, Wyoming Sister Geneviere Marie, Saint John Commercial School, New Haven,

Connecticut Lillian M. Kieke, Albuquerque High School, Albuquerque, New Mexico

Marjorie Webb, Mainland High School,

Daytona Beach, Florida Mrs. J. J. Moore, La Porte Business College, La Porte, Indiana

Alma Lee Puckett, Carmi Township High School, Carmi, Illinois Elizabeth Bailey, Bellflower Township High School, Bellflower, Illino's

Virginia Barnum, Omaha, Nebraska Winnifred Kent, St. Catharines Business College, St. Catharines, Ontario, Canada

Martha M. Hood, Galesburg High School, Galesburg, Illinois Margaret Vaughan, Miss Vaughan's

of Stenography, Lexington, Missouri

Anne B. Wright, Beacom College, Wilmington, Delaware oberta V. Wood, P

Roberta V. Pullman School of Manual Training, Chicago, Illinois

James Forbes, Woodbury College, Los Angeles, California

Ethel McCormack, Fresno Technical High School, Fresno, California

### Proficiency Certificate Winners

Doris A. Soule, Lawrence High School, Fairfield, Maine (With Honor Nedra Waite, Stanford High School,

Stanford, Montana
Eleanor D. Hobbs, Haverhill High
School, Haverhill, Massachusetts Hannah Marvin, Liberty High School, Liberty, New York Mary M. Markus, Spencer High

School, Spencer, Massachusetts

Gold Seal

Ruth McLellan, High School, Houlton, Maine (With Honor) Mrs. K. Chase Wins'ow, Glendale Secretarial School, Glendale, California (With Honor)

L. H. Diekroeger, Hadley Vocational School, St. Louis, Missouri

Warren Fisk, Banning Union High School, Banning, California

Sister Violet Marie, St. Mark's High School, St. Louis, Missouri Casimir

Sister M. Adorata, St. Academy, Chicago, Illinois Louise M. Kerkes, Greenland Town-ship High School, Mass, Michigan

(Continued on page 324)

Mildred Davidson, Beverly Hills High School, Beverly Hills, California Grace De Velbiss, Benjamin Franklin

High School, Los Angeles, fornia

Edith Maye Stephens, San Fernando High School, San Fernando, California

Bartoo, Roosevelt School, Los Angeles, California Julia W. Gobrecht, Polytechnic High School, Los Angeles, California

Mary R. Carver, Alexander Hamilton High School, Los Angeles, California Gertrude S. Huber, Hollywood High School, Los Angeles, California

alph E. Bauer, Fremont School, Los Angeles, California Mrs. Helen W. Dawkins, Bell High School, Bell, California

Tayler, Bell High School, Elsie A.

Bell, California
Gladys M. Byram, Thomas Jefferson
High School, Los Angeles, California
Mary Bowden, Ashdown High School, Ashdown, Arkansas

Margaret Mostrom, Oak Grove, Vassalboro, Maine

Mayme Swan, Twin Falls High School, Twin Falls, Idaho

Clara Bollman, Beloit High School, Beloit, Kansas

Evanna M. Barr, High School, New Oxford, Pennsylvania aurene Russell, Knapp's Modern Business College, Tacoma, Washing-Laurene

Mabel Catlin, Kamehameha School for

Girls, Honolulu, Hawaii Marcella M. Johnson, Hancock High School, Hancock, Michigan

Catherine Emich, Staco High School, West Virginia Lego.

Sister M. Leonarda, St. Mary's School, Rahway, New Jersey

Gladys Teske, Freeport High School, Freeport, Illinois Mary A. O'Neill, Bristol Secretarial

School, Bristol, Connecticut

School, Bristo, Connected Emma Beek, Central High School, Sioux City, Iowa Sister Mary Patrick, Our Lady of Perpetual Help High School, Rox-bury, Massachusetta Sister M. Paraelita, Alvernia High

School, Chicago, Illinois
Sister M. Clemens, Alvernia High
School, Chicago, Illinois
Sister Maura, St. Joseph Commercial

School, Chicago, I'linois Sister St. Mary of Israel, Waterbury Catholic High School, Waterbury, Catholic H Connecticut

Phyllis Larson, South Sevier High

School, Monroe, Utah Mrs. Murlel T. Amey, San Jose Col-lege of Commerce, San Jose, California

Arvilla Benshoof, Creston High School,

Creston, Iowa
Phyllis Porter, Cable's Secretarial
School, St. Paul, Minnesota
Nellie E. Wesch, Tigard High School.

Tigard, Oregon Iae Henning, Carrington Public North Dakota Schools, Carrington, North Dakota Sister M. Laura, St. Barbara School,

Chicago, Illinois Martha M. Dodge, East High School, Akron, Ohio

Rose H. Morrison, Hitchcock Free Academy, Brimfield, Massachusetts Marie Crossland, Brookings, South Dakota

M. Homan, Malta Public

Schools, Malta, Montana
Marion F. Woodruff, Gloucester High
School, Gloucester, Massachusetts Gretna Higgins, Burdett College. Lynn, Massachusetts Mildred V. Cromwell, Glen Burnie

High School, Glen Burnie, Mary-

M. Angela Augusta, Heart School, El Paso, Texas Sister M. Urban, St. John School, Defiance, Ohio Margie M. Brown,

Madison High Madison, Maine High Emily Hartmann. Seymour

School, Seymour, Wisconsin
Bertha E. Harris, Waterville High
School, Waterville, Washington
Marie Olsen, Arthur Hill High

School, Saginaw, Michigan

Helen T. Patterson, Cristobal High School, Cristobal, Canal Zone Stober, Caroline Girls' Polytechnic School, Portland, Oregon

Mrs. A. W. Johnston, A. W. Johnston School of Business, Billings, Montana

Amalia Helene Guenther, Borger High

School, Borger, Texas Gladys V. Conry, Arlington Heights Township High School, Arlington Township Heights, Illinois

Sister ister Mary Anselm, Notre Dame High School, Hamilton, Ohio Mildred I. Olson, Neligh High School, Neligh, Nebraska

Hilda filda Mesick, Coulee City High School, Coulee City, Washington

Marian E. Horn, Empire Township High School, Le Roy, Illinois Thenice Powers, Wilby High School,

Waterbury, Connecticut Mildred George, High School, Jack-

sonville, Illinois Ruth D. True, High School, West Connecticut Haven,

Mrs. Edith I. Shaw, Coleman Business College, Newark, New Jersey Mabel Kurth, Kincaid High School,

Kincaid, I'linois Lorna Stewart, Sibley High School.

Sibley, Iowa

Velma Lare, Lawrence, Kansas Elizabeth C. Harnack, High School of Commerce, Detroit, Michigan H. D. Shotwell, Topeka High School,

Topeka, Kansas C. C. Pittenger, High School, Long-W. mont. Colorado

Rena Davis Akin, Nashua Business Col'ege, Nashua, New Hampshire Waneta De Forest Ohmen, Sutt Sutter Union High School, Sutter, Cali-

fornia Sister Charles Therese, Loretto Academy, Santa Fe, New Mexico ister Mary Victor, O.P., Sacred Sister

Heart Academy, Springfield, Illinois R. Lanphear, Fort Collins High School, Fort Collins, Colorado

R. D. Parrish, Woodbury College, Los Angeles, California Mary L. Hudelson, Pomona, Kansas

Laurel Harris, Cairo High School, Cairo, Illinois Marian See'ey, Senior High School, Mobridge, South Dakota

E. Dorn, Jr., Beall High School, Frostburg, Maryland T Ferne Phillips, Bloomer High School,

Bloomer, Wisconsin Frances L. Moser, Senior High School, Galesburg, Illinois

Beulah Howard, Sugar City High School, Sugar City, Colorado

Florence Ludwick, Bayliss Business College, Dubuque, Iowa Agnes M. Erickson, Winthrop College, Rock Hill, South Carolina Inez Easton, Kalama High School,

Kalama, Washington Myrle Reynolds, Seymour Public

Schools, Seymour, Iowa R. Yekkar, Davers College of Commerce, Bombay, India

Sister M. Catharine Anita, Bethlehem Catholic High School, Bethlehem, Pennsylvania

Fallon, Lafayette School, Red Lake Falls, Minnesota William T. Elliott, El Paso Township High School, El Paso, Illinois

Jochumsen, Newburgh Free Academy, Newburgh, New York

Easter Hostetter, Shelby High School, Shelby, Montana Carmen Segarra, Central High School,

Santurce, Puerto Rico

Thronsen, Iowa Success Blanche A. School, Ottumwa, Iowa E. Bartley, Dana College, Blair,

Nebraska Lena Garavalia, William H. Hall High School, West Hartford, Con-William H. Hall necticut

Sister M. Victoire, St. Mark's High School, St. Louis, Missouri

### Red Seal

Adelia L. Bacharach, Franklin High

School, Boise, Idaho Marion F. Smethie, Washington-Lec

High School, Clarendon, Virginia

High School, Clarendou, Virginia Mrs. C. F. Noble, Merrill Commer-cial College, Merrill, Wisconsin Marjorie A. Streeter, Sodus High School, Sodus, New York Sister M. Doloretta, O.S.F., St. Hed-

wigs Industrial School, Niles, Illineis

Ida Nickel, Central High School,

Chattanooga, Tennessee ister M. Viatora, C.S.C., Saint Casimir Academy, Chicago, Illinois Sister Mae M. Hanlon, Leon High School, Leon. Iowa

Sister M. Dionysia, The Mallinckrodt, Wilmette, Illino's Hilda Hiatt, Essex High School,

Essex, Iowa Sister M. Dolorine, St. Mary's Acad-

Winlock, Washington emy, Ruth Bumpas, Woodbury College, Los

California Angeles. Marion Hunsicker, Fordson School, Dearborn, Michigan Mrs. Dorothy H. England, Fordson High

High School, Averill Park, New York Sister M. Agnes, St. Joseph's High School, Newport, Rhode Island

Evelyn Sutherland, North Attleboro High School, North Attleboro, Massachusetts

Dessie Potter, Canton, Mississippi Kenneth W. Christison, Lincoln Co. High School, Eureka, Montana Helen Davies, High School, Jason-

ville, Indians Adelle Jarchow, Wayzata High School,

Wayzata, Minnesota

Pauline Jore, Atlanta, Nebraska
Caroline F. Colson, Proctor High
School, Proctor, Vermont
Mrs. A. French, Northwestern School

of Commerce, Lima, Ohio Catharine Dean, Senior High School, Arkansas City, Kansas

Sister Teresa Margaret, St. John Commercial School, New Haven, Connecticut

Ellen Anderson, Evanston High School, Evanston, Wyoming frs. Lula Gatlin, ( Cox Commercial

School, Tucson, Arizona George C. Gerken, Ocean City High

School, Ocean City, New Jersey ister Marie Victoire, S.U.S.C., Academy of the Sacred Hearts, Fall Sister River, Massachusetts Marguerite E. Burke, Oxford High School, Oxford, Massachusetts

Margaret Connole, St. Francisville High School, St. Francisville, Illi-

nois Sister M. Georgina, O.P., Cathedral High School, Omaha, Nebraska

Fellingham, Sedan High School, Sedan, Kansas Hale Private

dela Hale, Adela Hale School, Hutchinson, Kansas Virgil Thomas, Brewster Consolidated Schools, Brewster, Kansas

Josephine Bryant, Plymouth High School, Plymouth, North Carolina Josephine Reid, Lincoln High School, Los Angeles, California

(Continued on page 344)



THE importance which the radio is assuming in the educational world may be judged by the fact that the Institute for Education by Radio will hold its fourth meeting at the Ohio State University, Columbus, Ohio, on May 3-6.

Sessions will be devoted to use of the radio in the schools, methods of presenting educational programs, ways in which the listener can be advised as to the educational programs on the air, studies of the response of the audience to programs and ways of measuring it.

Round tables will also be held on special phases of educational broadcasting. Forward-looking commercial educators should keep their eyes on this new movement.

PI OMEGA PI members in the Eastern states are planning to get together during the E.C.T.A. convention. There is to be a combined dinner for all of the members of the various Honor societies in commercial education who are attending the convention, to be held Friday evening, April 14. This is one of the "social activities" listed for that date in the official program appearing on page 320, so we learn from Mr. N. Birss Curtis, of Pittsburgh. Mr. J. O. Malott, in charge of Local Arrangements, can give you details.

MRS. WILLIAM H. BEACOM, the wife William H. Beacom, president of Beacom College, Wilmington, Delaware, has been elected chairman of the President's Council of the General Federation of Women's Clubs. Mrs. Beacom is to be felicitated upon having this high national honor conferred upon her.

THE Associated Business Schools of New England, an association of one hundred or more private business schools in the New England states, has recently issued an interesting booklet entitled, "The Business School Carries On!"

In it the association points with justifiable pride to several impressive facts: (1) that its enrollment exceeds the combined entrance

enrollment of eighteen famous New England colleges and universities, including Yale, Harvard, Smith, Wellesley, and the Massachusetts Institute of Technology; (2) that since 1900 approximately a million New England men and women have been students in these business schools; (3) that until the collapse of business in 1931 these schools had an honest record of "every graduate in a good position"; and (4) that no project in the industry of New England during the past forty or fifty years has been achieved without business school help directly or indirectly applied.

A record to be proud of!

THE Central Commercial Teachers' Association will meet May 4, 5, and 6, at Marshalltown, Iowa. The Hotel Tallcorn will be the association headquarters.

May 4 is to be Private School Managers' Day, Mr. H. H. Hunt, Central Iowa Business College, presiding. The President, Miss Charity Craig, Gates College, Waterloo, writes that noted speakers are being engaged for each section of the association activity. There will be round tables as well as general sessions.

Here is good news! Dues this year have been reduced by half. Registration for teachers will be \$1.00, managers and publishers' representatives, \$2.50. Members, regular and prospective, are urged to send their registrations immediately to the secretary, Mrs. W. R. Hamilton, Hamilton College of Commerce, Mason City, Iowa.

O N February 17 the nation lost one of its foremost educators in the death of Dr. Albert Edward Winship, who had been editor of the Journal of Education since 1886, nearly a half century. Had he lived six days longer he would have been eighty-eight years old.

In addition to his long career as author, lecturer, and editor, Dr. Winship was actively interested in politics, and had also been the pastor of the Prospect Hill Church of Somerville, Massachusetts, from 1874 to 1883.

He saw education in the United States grow from the days when there were only a few important colleges and rural schools predominated. He played a large part in the development of the country's educational facilities. It is said that he had presided at the birth of almost every state school system, and had been inside more school buildings and knew more teachers by name than any other person in the country.

Dr. Winship was educated according to the old New England culture, and knew Emerson, Longfellow, Holmes, Lowell, Horace Mann (of whom he wrote an authoritative biography), and Thomas Wentworth Higginson. He always kept abreast of the times and maintained a fresh point of view. He received honorary degrees from the University of Nashville and the University of Vermont.

He was a writer of shorthand and a great advocate of its universal use as a personal accomplishment.

In 1870 he married Ella R. Parker, of Reading, Mass., who died on October 12 last. Surviving are six children, George Parker Winship, assistant librarian of Harvard University; Edith A. Winship, of the World Book Company, New York; Mrs. Irving Herr, of Cincinnati; Edna E. Winship, of the Huntington Club Foundation, Syracuse, N. Y.; Laurence L. Winship, assistant managing editor and Sunday editor of "The Boston Globe," and Mildred L. Winship, of Cambridge; a sister, Mrs. Rosa Shaw, of Bayonne, N. J., and nine grandchildren.

We join with educators all over the country in paying tribute to a man who has given such long and valued service to the cause of education.

# Belated Acknowledgment

THROUGH an editorial oversight, due credit was not given the author of the two letters appearing in print on page 33 of the September issue of The American Shorthand Teacher. These two letters, which were used in a shorthand plate in the September Gregg Writer, were taken from "Business Letters: Principles, Functions, Composition," by Ralph Leslie Johns. The original author of these letters is Robert Ray Aurner, Professor of Business Administration in the University of Wisconsin. The letters were reprinted in "Business Letters" with the permission of Professor Aurner, and full credit was given him in the text. This credit was overlooked when the letters were used as plate material in The Gregg Writer.

# Out of the Well of Experience

Much has been written, and more spoken, about getting results in the teaching of shorthand. Here is a simple formula that gives the essence of it all:

- 1. Learn shorthand.
- 2. Plan your instruction.
- 3. Follow your plan.

A famous writer about that favorite indoor sport, Bridge, says: "Plan your game. A poor plan is immeasurably better than none at all." That goes for teaching as well.

Many a teacher would save much work and worry, while greatly improving results, if she would accept and be guided by a principle which must underlie all facile and joyous teaching of shorthand: shorthand is an art, not a science.

When teaching an art we are fundamentally dealing with a skill, or craft, rather than a chain of reasoning. It is the action, not the reason, that is important. The correct idea of form, the proper relation of movement, must be established. Underlying reasons may be understood or may be ignored without effect so far as the practice of the art is concerned. Time and struggle devoted to exposition of fine points of theory make no contribution to progress and absorb time sorely needed for more purposeful activities.

Do you like surprises? Just note the pens and pencils that are being used by your shorthand students and count the number of different kinds. If that doesn't surprise you, it will surprise us!

How many of those many instruments are "the best" for shorthand writing? There are two possible answers-one, or not any. Should such a condition prevail? Having suitable materials is now much more a matter of selection than of price. You can get from The Gregg Publishing Company pens, pencils, and notebooks that will enable your students to do their best work and that will cost them no more than unsatisfactory merchandise they may buy if left to make their own selection. A student does not know what he should buy for the best results-certainly he can hardly be expected to know as much about this as his teacher. Why not assist him in this simple manner along with the other service into which you put so much of your strength and nervous energy?

--G. S. F.

# New Approach to Teaching Shorthand

Summary of a talk before the Oregon State Teachers' Association. December 29, 1932

### By Minnie DeMotte Frick

School of Commerce, Oregon State Agricultural College, Corvallis, Oregon

\(\capprox\) HORTHAND teaching methods may be approach. The association and dictation ap-

approach. In the spelling approach the outline or form is divided into its elements, as h-o-t-e-l (hotel), which increases the learning difficulties and decreases the speed in proportion to the increase of parts. In spelling, each character used in forming a word outline becomes a unit of writing. Thus the word hotel has five thought and writing units, as h-o-t-e-l. The demand for speed made this cumbersome approach impossible, and the word era came into being. In the word approach the entire form becomes the unit of writing. Forms are drilled to the point of automatism through repetition-hotel, hotel, hotel, hotel, etc. Each and every form is learned as a whole through repetitive drill regardless of its importance or frequency of usage.

### Changing Approaches

This single-unit approach was far superior to the multiple-unit spelling approach,

yet it failed to reach the goal of the ambitious teacher, and that for numerous reasons.

First, the limit of time allowed for shorthand was not sufficient to automatize the thousands of forms necessary to write the English language.

Second, automatic reaction is a physical acquirement rather than a mental attainment, and the time for this physical change varies greatly with different individuals.

Third, the deadly monotony of continuous repetitive word drills inhibits mental activity, and thus becomes self-destructive.

The word era closed with the timely arrival of the Anniversary Edition of Gregg Shorthand introducing the association and dictation

divided into three general eras: (1) the . proach secures repetitive drill through adroitly spelling approach; (2) the word approach; (3) the association and dictation new form is constantly appearing in the most

unexpected places, but always in the association of other words. This "hide-andseek" word game exhilarates the mental faculties and stimulates the learning process.

the study of Gregg Shorthand in Los Angeles in 1916. From 1916 to 1918 she taught shorthand in business schools in Los Angeles.

Minnie DeMotte Frick began

Her higher education was received at the University of Utah, Columbia College of Expression (Chicago), and Oregon State Agricultural College, from which she holds a Bachelor of Science

In 1919, she accepted a position in the Secretarial Training De-partment of the Oregon State Agricultural College at Corvallis, where she is teaching at present. Here she was given full liberty to carry on laboratory research in the science of skill development as related to shorthand.

In 1924, the first fruits of her investigations appeared in a book entitled "Analytical Lessons in

Gregg Shorthand."
In 1931, a second book apteared, entitled "Teaching Gregg Shorthand by the Analytical Method." This book is addressed to teachers and teacher trainees of Gregg Shorthand, in which work she is especially interested.

Mrs. Frick has taught classes in Methods of Teaching Gregg Shorthand in the University of California (Berkeley), University of Utah, and Oregon State Agricultural College.

### Nine Points to Emphasize

[NOTE. Mrs. Frick had distributed a budget of mimeographed sheets giving practical illustrations, both in shorthand and longhand, of nine unusual points in shorthand teaching and learning. This budget enabled the teachers to study, at leisure, illustrative pages of the rest of her talk, as she explained the nine points of the budget briefly.]

1. The shorthand language, or learning to think in terms of shorthand. The English word spoken by the dictator should be immediately translated into the shorthand language (terms of shorthand) by the writer. This procedure precludes error in form, as only such sounds are included in the shorthand pronunciation as must appear in the outline.

This peculiar pronunciation is especially serviceable in learning irregular outlines that do not follow the sounds of the spoken word, and those that cannot be paired into like outlines, as

otherwise pronounced situation pronounced sit-shun merchandise mech-dise pronounced certify pronounced se-tif bundle pronounced bun-l pronounced 00-11111

Notice that the words are divided into sound groups. This is an effective substitute for spelling.

2. Association of memory groups with the general response. Many forms in shorthand may be divided into two classes: (1) those that follow a general habit pattern, and (2) those that vary from the general response. This latter class includes abbreviated forms of high frequency, and a few necessary variations. A standard of measurement is provided for the writer by setting up a memory list, with these instructions, "If the word does not appear in the memory list, it falls within the general group." The memory lists are not exceptions to any law, but variations from the general response only. This procedure is an effective answer to the question, "Well, when do we, and when don't we?"

General Response

Memory Forms

Write sh for shul except in special, especial finan-

cial, official, facial racial, glacial, controversial

Write m for -ment except in arrangement, improve-

ment, government; (use men-t in) cement, raiment, lament, comment, foment, ferment. clement

Write the oo hook except in

school, proof, soon, room, prove, June, junior, coupon

- 3. An easy and effective way of determining the joined and disjoined ed, er-or suffixes.
  - (a) Write the word on the board in long-
  - (b) Write the outline expressing the essential part of the word.
  - (c) If the final symbol of the outline expresses the letter preceding the ed or the er, the termination is joined.

(Joined) expelled, stranger, contained, rented, sooner, assisted

(d) If a space remains between the final symbol and the ed or the er, the termination is disjoined.

(Disjoined) pub(lish)ed sen(d)er exten(d)ed

- 4. The first hour of shorthand. Emphasis is placed on line division as a foundation for proportion; the drawing and get-away strokes; the purpose and development of sound pictures.
- 5. The triplet-unit alphabet: Developing sound-response and stroke length through the use of the triplet-unit alphabet; n, m, men; t, d, ted; sh, ch, j; oo, k, g (hard); th, ten, time; s, f, v; o, r, l; th (left), nd, md; s (left), p, b; h, a-an, -ing.
- 6. Development of phrase and sentence writing through the use of the single stroke alphabetical symbols.
  - (a) Form development: haying, shipping, willing, changing, putting, ending, being, going.
  - (b) Continuity development: more hay, more men, more time, more shipping, more changing.

- (c) Phrase development: not; would-not, did-not, cannot, is-not, are-not, will-not, have-not.
- (d) Sentence development: Can-the men put the hay in-the ship by-the-time itwill-be going?

7. Methods for expanding the early drills of the Manual without change of form or increase of labor. Reading requires a knowledge of all . translations and the selection of the proper one.

The following examples illustrate the use of the Manual in the simultaneous development of sounds, brief forms, words, and phrases. Expansion is especially valuable in teaching Chapters 1-4, and is readily adapted to other portions of the Manual.

Caution. Proper names, phrases, and complicated outlines should not be expanded. Disregard vowel marks. (The citations refer to paragraphs in the Manual.)

Use the three vowel sounds for e; short and long vowel sounds for a.

- (a) The two-sound unit (pars. 11-12-13):
- (Par. 11) eke outline translated ik, ek, eek, weekweak, he-can key outline translated ki, ke, key
- (Par. 12) aim outline translated am, aim, I am may outline translated ma, may, my

(Par. 13) (Sentence 1)

A day in the good will aid air her. add air will a day 113 the go her good where well aid here an not I would were aware

- (b) The three-sound unit (pars. 14-25):
- (Par. 14) kick outline translated kik, kek, keek cake outline translated kak, kake
- (Par. 15) deck outline translated dick, deck, deak
  - (c) The vowel may be transposed mentally while looking at the outline, also h may be added. Mentally substitute the additional circle.
- (Par. 28) him outline translated him, hem, heem, also suggests the form for ham, hame lack outline translated lack, lake, also suggests the form for lick, leck, leak

All of these sound-groups are practiced instead of the single word given. These variations may be read in concert very rapidly while looking at the outline given in the Manual. Writing the form in the air when reading is an excellent means in establishing habit-pattern reactions.

- 8. Laying the foundation of independent form construction through the use of:
  - (a) The one-sound unit or single stroke, as k, r, l, t, d.

(Continued on page 330)

# EDITORIAL COMMENT

ON SUNDRY TOPICS

# The Value of Warm-Up in Skill Subjects

THE importance of "warm-up" in both shorthand and typewriting has long been recognized by experts in these fields, teachers as well as professional typists and shorthand writers. "The secrets of success in sports and work," according to a report in the New York Times, "were told in discoveries about 'warming up' reported to the American Psychology Association at a recent meeting at Cornell University."

The item continues:

In these studies, reported by Dr. E. B. Skaggs, of the College of the City of Detroit, in the section on work and efficiency, it was stated that "off form" in golf or a poor day's work might be caused partly by "faulty warming up."

by "faulty warming up."
"Warming up" was measured with arm and finger exercises, which showed that emotions and mind sometimes were as important as muscular condition.

The time one person needed to warm up might be wholly different from another's. Some, Dr. Skaggs said, were "much slower than others." This slow type was also long delayed in ability to switch to another task.

Warming up took distinctly longer when a person was deeply engrossed in something else just before beginning work and emotions and excitement at the start interfered with getting into good form sometimes for the entire first part of the undertaking.

Lack of interest at the outset resulted frequently in failure to do good work. But when initial interest was high, often hardly any warming up was needed.

The "off form" of the tennis player was connected in some obscure fashion with warming up. The "mechanisms" constituting his skill failed to respond to effort. Highly trained persons, however, recovered this form quickly.

Probably the "off form" was explained, Dr. Skaggs said, by failure of the mental faculties to remember, or what he termed "blocked recall."

"Limbering up," a favorite recourse of athletes, was found to play a rather minor rôle as compared with the less commonly realized factors.

Finally, the condition of muscular slight tension, called "tone," was apparently a stimulus to more efficient perception and thinking.

Commenting on this report, Mr. Harold Smith writes:

"Warming up in a skill subject involves the

principle of 'review' in ordinary knowledge subjects, but in typing it deals almost entirely with the mental and muscular skill factors entering into the composite skill that is being recalled. A review of knowledge, as such, does not necessarily enter into the warming-up process so long as all the essential mental and muscular factors are exercised and brought up to a desirable level of controlled activity.

"Without proper warming up, the human being cannot exercise the greatest skill of which he is capable. A highly skilled typist, athlete, or musician, especially one who specializes in a given field, maintains his mental and muscular organism in relatively prime condition to exercise his skill. He has a more complete, intelligent control over mental and physical faculties, and can recall his skill with a minimum of effort in a very brief time.

"The poorly skilled worker, handicapped by clashing and inadequate techniques of mind and muscle, who has never attained the heights of expertness, must spend much more time and effort in the recall of his skill. If he does not consciously recall his skill, he will find it impossible to control either mind or muscle in doing production work, or he will have to operate on an extremely low level; that is to say, at less than his optimum speed and fluency.

"On the mental or nervous side, recall involves:

Right interest

Correct focussing of attention

Desirable nervous tension—readiness to react

Proper attitude toward control of nerves and muscles as to

Speed

Accuracy, and Fluency

Ability to synchronize all efforts

"On the muscular, or strictly physical, side, recall involves:

Correct position of every bodily unit for best results

Correct muscular tension or 'tone'; readiness to react physically

Correct movement of every bodily unit Correct energizing of every bodily unit

The ability to inhibit undesirable positions and movements tending to reduce speed, accuracy, or fluency-even though they may have been already set in motion'

It is of special note that Dr. Skaggs emphasizes the importance of emotions and mind. The typist cannot make his warming up effective unless he is strongly motivated and concentrates just as completely on his "warm-up" as he would if typing something that had a real purpose outside of the effect of warming up. He also says that warming up took distinctly longer when a person was deeply engrossed with something else just before beginning work and his emotions and excitements at the start interfered with getting into good form.

Dr. Skaggs observes that "limbering up," a favorite recourse of athletes, was found to play a rather minor rôle as compared with the less commonly recognized factors. This distinction between limbering up and warming up is important. Nothing particularly is gained by the mechanical limbering up, unless it is accompanied by a high degree of motivation and concentration.

He mentions also the effect of lack of interest at the outset of the warming-up exercise, resulting in frequent failure to do good

Warming up undoubtedly is of greater importance than many realize. Many teachers do not appreciate its importance, and are thus likely to allow students to go about it in a more or less haphazard way. Our Gregg Typing Series provides warm-up material at all levels of accomplishment, which may be of great profit to the student if properly used.

The most important factor brought out in this psychological study of "warm-up" is the significance of motivation, of creating and maintaining interest. This is a point to which the best thought and effort of the teacher must be directed if the best results are to be obtained in either shorthand or typing.

### The New Approach to Teaching Shorthand

(Concluded from page 328)

(b) The two-sound unit—a writing unit of two sounds, as ik, ak, ke, ka,

(c) The three-sound unit—a writing unit composed of any consonant and vowel combination plus an additional consonant, as kit, kid, kin, kik.

These phonetic sound and writing units are later used in original word construction, as cr-ick-ct, cam-cra, li-mi-ted. Notice that the vowel is phrased with the consonant to which it is joined by law.

9. Building the radiant. The radiant is made by taking a consonant and a vowel combination, as ka, and adding as many consonants as can be fitted by rule to that root. Use the triplet-unit consonantal groups as given below. The root is written only once; when the consonant strokes are added they appear as fanshaped rays extending outward from the common center, ka.

ka and ga (Upward).....t, d, ted, th, ten, tem (Forward)..... n, m, men, k, g (Chap. II) (downward) ... sh, ch, j, s, f, v

(a) After the radiant is made, forms may be set out separating into sound-groups, as kat, Kate, cad, cade, cadet, etc.

(b) Words may be segregated from the sound-groups, as cat, Kate, cad, cadet,

(c) New words may be formed by adding new sounds to the basic form, as cattle; Katie, caddy, etc.

(Editor's Note: See "Teaching Gregg Shorthand by the Analytical Method," by Minnie Demotte Frick, for further explanation of points 5, 8, and 9.)

Probably the worst enemy the educator faces is tradition. Other organized activities may suffer from it more than do the schools, but I doubt it. Traditional methods and traditional courses are difficult either to change or to eliminate. -M. I. Relihan

# Summer School Directory for 1933

SPECIAL COURSES in Commercial Teacher Training will be offered this summer at the following schools according to announcements sent us recently. This list includes all schools from which information is now at hand. Any additional listings received before April 10 will be reported in the May issue.

### Alabama

ALABAMA COLLEGE MONTEVALLO

Beginning Typewriting: Mrs. Luel'a Grisson

June 12 to July 21

Lelah Brownfield, Head of Department Dr. T. H. Napler, Director of Summer School

University of Alabama University

Reginning courses in Shorthand and Typewriting

Two terms—June 5 to July 14; July 15 to August 18

I. C. McIntyre, Head of Department Dr. John R. McLure, Summer

### Arizona

ARIZONA STATE TEACH-ERS COLLEGE FLAGSTAFF

Shorthand and Typewriting Theory: Edna Dotson; Shorthand and Typewriting Methods: Dr. E. W. Atkinson, Robert I. La Dow; Accountancy Theory and Methods: Tom O. Bellwood; Advertising and Salesmanship: Atkinson; Junior Business Training Methods: Atkinson, Dr. E. J. Brown; Principles of Business Education: Atkinson, Brown; Economics: Dr. J. C. Reagan Two terms—June 5 to July 7;

July 10 to August 11 Dr. Grady Gammage, Direc-

### Arkansas

ARKANSAS STATE TEACH-ERS COLLEGE CONWAY

Shorthand Methods: Mrs.
Pearl Greene; Beginning and
Advanced Typewriting: Mrs.
Greene; Bookkeeping and
Accounting: C. C. Calhoun
Two terms—June 5 to July 14;
July 15 to August 25

C. C. Calhoun, Director

### California

University of Cali-FORNIA BERKELEY

Elementary Shorthand Methods and Demonstration: Mrs. Jean Jensen; Elementary Typewriting Methods and Demonstration: Irene Grady; Accountancy: Prof. Roy B. Kester

June 26 to August 4 Dean Harold L. Bruce, Direc-

Southwestern Univer-

Los Angeles Standard courses in Shorthand, Typerwiting, Accountancy

June 20 to September 10 Dr. J. J. Schumacher, President

University of California at Los Angeles Los Angeles

Shorthand and Typewriting Methods: Albert E. Bul'ock; Accountancy Principles: John C. Clendenin; Advertising and Salesmanship: George W. Robbins; Supervision and Administration: Bullock; General Commercial Education: Bullock

Two terms—June 28 to August 9; August 10 to September 1 Dr. Gordon S. Watkins, Director

University of Southern California Los Angeles

Shorthand and Typewriting Theory and Methods: Eva M. Jessup; Accountancy Theory and Methods: Dr. Herbert A. Tonne; Secretarial Administration: Dr. Benjamin R. Haynes; Junior Business Training Theory and Methods: Itaynes; Curriculum Construction in Business Education in Secondary Schools: Tonne; Seminar in Business Education: Haynes; Thesis Seminar: Haynes; Problems in Business Education: Dr. Ira W. Kibby; Merchandising Curriculum and Methods: Albert E. Bullock; Secretarial Administration: Kibby

Two terms—June 19 to July 28; July 31 to September 1
Dean Lester B. Rogers, Director

WOODBURY COLLEGE Los Angeles

Methods Courses in Shorthand, Typewriting, Bookkeeping, Secretarial Training, Commercial Law, Commercial Art; College-grade special Content courses in Business Administration, Accountancy, Secretarial Science

July 3 to August 11 R. H. Whitten, Director

### Colorado

COLORADO STATE TEACH-ERS COLLEGE GREELEY

Shorthand I: S. C. Bedinger; Shorthand II: J. M. Thompson; Teaching of Shorthand Transcription: Bedinger; Typewriting I: W. L. Knies; Typewriting II: A. L. Walker; Accounting I: A. O. Colvin; Accounting II: H. D. Fas-nacht; Methods of Teaching Shorthand, Typewriting, and Allied Subjects: Knies, Bed-Methods, Material, and Equipment for Teaching Office Appliances: Knies Commercial Law II: Bedinger: Salesmanship: Bedinger; Cur-Economic Trends: L. S. Lyon; H: Methods: Colvin; Handwriting Applied Economics: Knies; Course—Fundamental Aspects of the Social Order-Industry in the Social Order, Teaching Vocations from the Social Point of View: Lyon; Economics of Retailing: Colvin; Eucation for Business, A Sur vey of Purposes and Institu-

Two terms—June 17 to July 22; July 24 to August 26
A. O. Colvin, Head of De-

partment Dr. G. W. Frasier, President

University of Colorado

Beginning and Advanced Stenography, Beginning Typewriting: C. W. Woodside (first term); Accounting Principles and Intermediate (first term): G. G. Fullerton; Accounting Procedure (Second term): H. W. Kendrick; also courses in Budgets and Accounting Control, Seminar in Accounting Theory, Seminar in Accounting Reports, Problems in Public Finance and Taxation, Special Studies in Rusiness Research. ments, Public Utilities, Principles of Marketing, Principles of Merchandising, Principles of Advertising

Two terms—June 19 to Ju'y 22; July 24 to August 25
Prof. Elmore Petersen, Dean, School of Business Administration
Milo G. Derham, Ph.D., Dean of the Summer Quarter

University of Denver, School of Commerce Denver

Content and Methods courses in Shorthand, Typewriting,

and Secretarial Training:
Mary Leah Kots; Bookkeeping and Accounting: Prof.
C. W. Collins and others;
Social Business Subjects:
Prof. E. A. Zelliot; The
High School Commercial Curricu'um: Zelliot; Economics:
Dr. A. D. Kaplan; Statistics:
Prof. F. L. Carmichael; Flnance: Prof. Paul Conner

Two terms—June 12 to July 19; July 19 to August 25
F. C. Onstott, Director of Summer School

WESTERN STATE COLLEGE GUNNISON

Beginning and Advanced Shorthand and Typewriting: Eva Carpenter; Beginning and Advanced Accounting: P. E. Leavenworth

Two terms—June 10 to July 3; July 5 to August 19 C. C. Casey, President

### Connecticut

STATE SUMMER NORMAL SCHOOL

NEW HAVEN
Methods of Teaching Typewriting, Bookkeeping, and
Elementary Business Training; George E. Mumford
July 3 to August 11

Franklin E. Pierce, Director

### District of Columbia

THE CATHOLIC UNIVER-SITY OF AMERICA WASHINGTON

Junior High School Commercial Curriculum, Survey of Commercial Education Curriculum, The Teaching of Bookkeeping in Secondary Schools: Dr. Deviny

June 23 to August 3 Dr. Roy J. Deferrari, Direc-

### Georgia

SOUTH GEORGIA TEACH-ERS COLLEGE COLLEGEBORO Typewriting, Bookkeeping: H. G. Jones June 13 to August 30 Z. S. Henderson, Director

GEORGIA STATE COLLEGE FOR WOMEN MILLEDGEVILLE Beginning Shorthand, Advanced Shorthand, Secretarial Training, Beginning Typing, Intermediate Typing, Advanced Typing; Florence Barnett

June 13 to July 22 Dean Edwin H. Scott, Direc-

### Illinois

GEM CITY BUSINESS COLLEGE QUINCY

Shorthand: T. E. Musselman, Helen Heather, Louise Dawson, Alice C. Lease; Typewriting: Faye Mathls; Bookteeping: C. I. Smith, Dorothy Bader; Commercial Law and Arithmetic, Higher Accounting: W. T. Brown

June 5 to August 25 T. E. Musselman, Director

THE UNIVERSITY OF CHICAGO CHICAGO

The Teaching of Shorthand (either term) Ann Brewington; The Teaching of Typewriting (first term) Miss Brewington; The Teaching of Ac-counting in Secondary Schools (second term) J. O. McKinsey; Problems of Business Euca tion (first term) H. G. Shields: Problems of Teaching the Social-Business Subjects term) Shields; Office and Practices (second term) Miss Brewing-Also courses in Accounting, Marketing, Business Economics, Business Psychology. Finance, Law, Business Organization, Statistics, Personnel Management

Two terms—June 17 to July 21; July 24 to August 25

W. H. Spencer, Dean, School of Business E. T. Filbey, Director of Summer Session

WESTERN ILLINOIS STATE
TEACHERS COLLEGE
MACOMB

Courses in Beginning and Advanced Shorthand, Typewriting, Accounting, Commercial Education, Business Administration, Handwriting Theory and Practice

June 13 to July 21 Dr. Clyde Beighey, Head of Department Dr. W. P. Morgan, President

THE GREGG COLLEGE CHICAGO

Content and Methods Courses in Shorthand Theory: W. W. Lewis; Advanced Shorthand: Helen W. Evans; Typewriting: Katherine O. Bracher; Secretarial Practice: Jessie Lu Holm; Accounting: Perry Stinger.

July 10 to August 18 Henry J. Holm, Principal

DE PAUL UNIVERSITY

Content and Methods Courses in Shorthand and related subjects: Blanche G. Doyle, Loretta Hoyt

June 27 to August 3 Dr. Howard E. Egan, Director of Summer School

ILLINOIS COMMERCIAL COLLEGE CHAMPAIGN

Methods of Teaching Shorthand: Lois Carlin; Methods of Teaching Typewriting: Dorothy Hill; Methods of Teaching Bookkeeping: Dr. Paul M. Green; also courses in Commercial Law, Commercial Arithmetic, Secretarial Training

June 19 to July 28 J. R. Colbert, Director

ILLINOIS STATE NORMAL UNIVERSITY NORMAL

Materials of Business Education, Business Organization: Jane Church; Accounting: Arthur Williams and H. F. Admire; Commercial Law: Williams; Marketing, Business Management: Margaret Peters

June 10 to July 21

Arthur Williams, Director of Commerce Education Division

SOUTHERN ILLINOIS STATE TEACHERS COLLEGE CARBONDALE

Shorthand and Typewriting: Catherine Cavelia; Bookkeeping: T. L. Bryant; also courses in Finance, Marketing, Business Organization

June 6 to July 15 H. W. Shryock, President

### Indiana

BALL STATE TEACHERS
COLLEGE
MUNCIE

Beginning Beginning and Advanced Shorthand: Vernal H. Carmichael, B. M. Swinford, Cecil Puckett; Beginning and Advanced Typewriting: Frances R. Botsford, Swinford, Puckett; Bookkeeping: M. E. Studebaker, Swinford; Business Law, Business Finance: Swinford; The Administration of Commercial Courses in Secondary Schools and The Teaching of Bookkeeping in the High School: Studebaker; The Teaching of Shorthand and Typewriting in the High School: Carmichael: Objective Tests and Measurements Applied to Commercial Subjects; Betsford; Graduate Course on the Administration and Supervision of Commercial Education: Studebaker

Two terms—June 19 to July 21; July 24 to August 25

M. E. Studebaker, Head of Department

L. A. Pittenger, President
CENTRAL NORMAL COLLEGE

Danville
Content and Methods Courses
in Shorthand: Blanche M.
Wean; Content and Methods
Courses in Typewriting: Chester J. Elson; Bookkeeping:
Geoffrey L. Carmichael; also
courses in Commercial Arithmetic, Penmanship, Spelling,
Office Practice

Three terms—May 4 to June 9; June 12 to July 14; July 17 to August 18

Blanche M. Wean, Head of Department Waldo Wood, President

Indiana State Teachers College Terre Haute

Content and Methods courses in Shorthand: Kate Browning: Content and Methods Courses in Typewriting: V. E. Breidenbaugh. Irma Ehrenhardt; Bookkeeping: Frank Grove; also courses in Business Law, Commercial Arithmetic, Business Letter Writing, Salesmanship, Secretarial Training, Methods in Teaching Junior Business Training Two terms—June 19 to July 21; July 24 to August 25 Shepherd Young, Director

INDIANA UNIVERSITY, SCHOOL OF COMMERCE AND FINANCE

BLOOMINGTON
Content courses in Shorthand
and Typewriting: Lule M.
Westenhaver

Dr. H. L. Smith, Dean of School of Education and Director of the Summer Session

### Iowa

IOWA STATE TEACHERS
COLLEGE
CEDAR FALLS

Shorthand, Secretarial Training: Myrtle E. Gaffin; Typewriting, Junior Business Training, The Teaching of Shorthand and Typewriting; Julia Mao Myers; Accounting, Commercial Law, Business Publications, The Teaching of Bookkeeping: R. O. Skar; Commercial Correspondence, Advertising, Accounting, Marketing, History of Commerce: George R. Mach; Penmanship: H. C. Cummins

June 5 to August 25 O. R. Latham, President

THE STATE UNIVERSITY OF IOWA CITY

First Term—Techniques for Improvement of Instruction in Typewriting: Blackstone; Techniques for Improvement of Instruction in Stenography: Schrampfer; Administration and Supervision of Commercial Education: Blackstone; Tests and Measurements in Commercial Education: Blackstone, Second Term—Techniques for Improvement of Instruction in Bookkeeping and Junior Business Training: Blackstone; The Commercial Curriculum: Blackstone; Review of Research in Commercial Education: Blackstone; Beminar in Commercial Education: Blackstone

Two terms—June 9 to July 20; July 21 to August 24
Dr. E. G. Blackstone, Head of Department
Dean P. C. Packer, Director of Summer School

### Kansas

FORT HAYS KANSAS STATE COLLEGE HAYS

Courses in Elementary and Advanced Shorthand, Elementary Typewriting, Commercial Teaching Methods, Supervised Teaching in Commerce, Law, Economics, Commerce ocurses will be offered only one term, whether the first or second not decided.)

Two terms—May 29 to July 28; July 29 to August 25
Leonard W. Thompson, Head of Department

Dr. E. R. McCartney, Head of Department of Education F. B. Lee, Director of Summer School

KANSAS STATE TEACHERS COLLEGE OF EMPORIA EMPORIA

Courses in Beginning and Advanced Stenography, Elementary Typewriting, Accounting, Business Organization, Methods in Penmanship

Two terms—May 31 to July 29; July 31 to August 26
Dr. Raiph R. Pickett, Head of Department
Thomas W. Butcher, Presi-

KANSAS STATE TEACHERS COLLEGE PITTSBURG

Shorthand: Willa M. Dush; Typewriting: Lillian I. Miller; Bookkeeping: J. U. Massey and L. C. Gunfey; Business Administration: Walter S. Lyerla, J. U. Massey; also courses in Accounting and Business Law

Two terms—June 5 to August 4; August 5 to September 1
Waiter S. Lyerla, Head of Department

### Kentucky

Bowling Green College of Commerce Bowling Green

Content and Methods Courses in Shorthand, Typewriting, and related subjects; Methods of Teaching Junior Business Training

Two terms—June 5 to July 8; July 10 to August 12 W. S. Ashby, Business Man-

E HOS

University of Kentucky Lexington

Methods of Teaching Commercial Subjects, The Commercial Curriculum, Methods and Materials in Junior Business, Problems in Commercial Education (Research)

Two terms—June 12 to July 15; July 17 to August 19
A. J. Lawrence, Head of

Department
Dr. Jesse B. Adams, Summer
School Director

EASTERN KENTUCKY STATE TEACHERS COLLEGE RICHMOND

Shorthand and Typewriting: Edith G. Ford and Anna D Gill: Bookkeeping: R. Richards; Business Law, Marketing, Public Finance, Eco-nomics: W. J. Moore

Two terms-June 5 to July 14; July 17 to August 25 Dr. W. J. Moore, Head of

Department Dr. H. L. Donovan, President

GRADUATE SCHOOL OF EDUCATION CAMBRIDGE

Principles of Vocational Education: Dr. Fred C. Smith; Improvement of Instruction in Bookkeeping: Charles E. Bow-Supervision of Commercial Education in the High School: Bowman

Term opens July 5 N. Henry Black, Director McPherrin H. Donaldson; a content Elementary Shorthand

July 5 to August 12 T. Everett Fairchild, Direc-

SIMMONS COLLEGE ROSTON

Accounts (Elementary): Assistant Professor Sweeney; Accounts (Advanced Content Connell; Bookkeeping: Henwood, Mrs. M. Schnell July 10 to August 25 Miss A. B. Mitchell, Director A. F. Tull. President

CENTRAL STATE TEACH-ERS COLLEGE MOUNT PLEASANT

Shorthand and Typewriting: Emma B. Carr; Bookkeeping and Business Law: F. E. Robinson

June 26 to August 4 F. E. Robinson, Head of Department E. C. Warriner, President

University of Michigan ANN ARBOR

Methods in Shorthand and Typewriting, Principles Commercial Education: J. M. Trytten

June 26 to August 18 Edward Henry Krause, Dean of the Summer Session

CLEARY COLLEGE YPSILANTI

Life Certificate and Degree Courses, including Commercial Methods, through affiliation with Michigan State Normal College; also secretarial and other business courses

Two terms-June 26, opening date of first term; August 7, opening date of second term P. R. Cleary, President

WESTERN STATE TEACH-ERS COLLEGE KALAMAZOO

Content and Methods Courses in Shorthand and Typewriting, Research Methods and Results of Recent Studies in Shorthand and Typewriting: Bertha M. Leighton; Beginning and Advanced Accounting, and Principles of Secdary Commercial Education: E. D. Pennell

June 26 to August 4 E. D. Pennell, Head of Department D. B. Waldo, President

### Minnesota

RASMUSSEN PRACTICAL BUSINESS SCHOOL ST. PAUL Content and Methods Courses —Shorthand: Ida Carlson; Typewriting: Anna Becker; Bookkeeping: R. F. Zehner

July 5 to August 26 Walter Rasmussen, President

Mississippi

DELTA STATE TEACHERS COLLEGE

CLEVELAND Advanced Shorthand and Transcription, Beginning and Advanced Typewriting

May 30 to August 11 W. M. Kethley, President

### Louisiana

LOUISIANA STATE NORMAL COLLEGE NATCHITOCHES

Shorthand: Wilma Byrd; Typewriting: Addie Bookkeeping: N. B. Morrison; Commercial also courses in Law and Economics

May 30 to July 30

N. B. Morrison, Head of Department W. W. Tison, President

LOUISIANA STATE UNIVER-BATON ROUGE

Beginning and Advanced Shorthand: Howard M. Nor-Advanced ton; Beginning and Advanced Typewriting: W. D. Parsons June 7 to August 5

Howard M. Norton, Head of Department A. Ives, Summer School Director

SOUTHEASTERN LOUISIANA COLLEGE HAMMOND

Shorthand, Typewriting, Bookkeeping, and related subjects: R. Norval Garrett

May 31 to July 8 R. Norval Garrett, Head of L. A. Sims, President

SOUTHWESTERN LOUISI-ANA INSTITUTE LAFAYETTE

Content and Methods Courses in Shorthand and Typewriting: Eleanor Crigler DeHaven; Accounting: R. H. Agate June 6 to August 5

Dr. Harry Lewis Griffin, Dean, College of Liberal Arts and Director of the Summer Session

### Maine

MAINE SCHOOL OF COM-MERCE AUBURN, BANGOR, AND

PORTLAND Methods Courses in Shorthand, Typewriting, Accounting, Office Practice, and

Business English July 10 to August 18

Directors: Agnes C. Seavey, Auburn; Chesley H. Husson; Bangor; E. F. Richards,

Massachusetts HARVARD UNIVERSITY, April Washington

Inland Empire Association, Spokane, 6-8 12-15 Eastern Commercial Teachers' Asso-

Coming Events

ciation, Washington, D. C. 18-20 Ontario Education Association National Association of Penman-ship Teachers and Supervisors, 19-21

Pittsburgh, Pennsylvania Gregg Association, 22 Canadian Toronto

Institute for Education by Radio, May Columbus, Obio 3-6

Central Commercial Teachers' Association, 28th Annual Convention, Marshalltown, Iowa

University of Chicago Conference lune 29-30 on Business Education National Education Association Con-July

vention, Chicago, Illinois 1.7 World Federation of Education As-29sociations, Fifth Biennial Confer-Aug. ence, Dublin, Ireland 4

BAY PATH INSTITUTE SPRINGFIELD

4-6

Methods and Subject Matter Courses in Bookkeeping, Accounting, Shorthand, Typewriting, Arithmetic, English. Commercial Law, Psychology July 3 to August 11

C. F. Gaugh, Director

BOSTON UNIVERSITY

of High School Principples Commercial Education, and Methods of Teaching Ele-mentary Bookkeeping: Atlee L. Percy; Tests and Measure-ments in Commercial Education: Paul M. Boynton; Methods of Teaching Advanced Bookkeeping, Methods Teaching Business Arithmetic: George L. Hoffacker; Methods of Teaching Commercial Geography: William L. Anderson; Methods of Teaching Commercial Law: Bessie N. Page; The Teaching of Junior Business Training: William L. Einolf; Methods of Teaching Shorthand: Walter H. Mechler: Typewriting (Elementary and Methods courses): Mrs. ma R. Rich; The Teaching of High School Economics:

and Methods courses): Assist-Professor Engler; Advertising: Dr. Eldridge; Com-mercial Education: Professor Wilkinson; Commercial Geography: Engler; Commercial Law: Miss O'Brien; Office Methods and Office Machine Practice: Sweeney; Psychology for Teachers: Eldridge; Short hand (Elementary and Methods courses): Assistant Professor Adams; Shorthand-Typewriting (Advanced): Assistant Professor Wilkin-son, Mrs. Coulter; Tests and Measurements: Eldridge; Typewriting (Elementary courses): Assistant Methods Professor Jacobs

July 5 to August 15

Dr. Edward H. Eldridge, Di-

### Michigan

THE BUSINESS INSTITUTE DETROIT

Content and Methods Courses in Shorthand: Miss A. B. Mitchell, Mildred Philips. Vera M. Dawson, Alice Ream, Mrs. G. Warmington; Type-writing: Jessie Collins, Inez

### Missouri

SOUTHEAST MISSOURI STATE TEACHERS COLLEGE

CAPE GIRARDEAU

Shorthand and Typewriting: Clara L. Hoffman; Bookkeeping and Law: E. H. Newmeyer May 30 to August 4

E. H. Newmeyer, Head of Department Dr. Joseph A. Serena, President

CENTRAL MISSOURI STATE TEACHERS COLLEGE WARRENSBURG

Shorthand: Myrtle Downs; Typewriting: Ina Smith; Rookkeeping: Clay J. Anderson; Methods of Teaching Business Subjects in High School

June 5 to August 10
Dr. W. E. Morrow, Head of Department
E. L. Hendricks, President

NORTHEAST MISSOURI STATE TEACHERS COLLEGE

KIRKSVILLE
Shorthand; Freda Bruns;
Typewriting: Bruns; Bookkeeping: Ruth Roberts; Economics: Mrs. Clara Clevenger;
The Teaching of Commerce

May 29 to August 4
P. O. Selby, Head of Commerce Division
Eugene Fair, President

NORTHWEST MISSOURI STATE TEACHERS COLLEGE MARYVILLE

Shorthand and Typewriting: Minnie B. James; Bookkeeping: E. L. Kelley; Business Law, Money and Banking: E. W. Mounce; Business Organization, Marketing, Salesmanship: Kelley

May 31 to August 9

E. W. Mounce, Head of Department
Uel W. Lamkin, President

ST. Louis University St. Louis

Methods of Teaching Shorthand and Typewriting, Accounting, Business Law, Economics

June 20 to August 1

Rev. J. L. Davis, S.J., Director of Summer School

STATE TEACHERS COLLEGE SPRINGFIELD

Shorthand: Mrs. Ruth Gibson; Typewriting: Mrs. Gibson, W. V. Cheek; Accounting: Mr. Cheek, O. P. Trentham, J. D. Delp; Business Mathematics, Business Correspondence, Office Training, Introduction to Business: Delp; Teaching of Commerce: Mrs. Gibson

May 29 to August 3 J. D. Delp, Head of Department

### Montana

UNIVERSITY OF MONTANA MISSOULA Beginning and Advanced

Shorthand, Typewriting: Brenda Wilson; Accounting: E. B. Sanford; Teaching of Commercial Subjects in Secondary Schools, Marketing. Commercial Geography: Dean Robert C. Line

Two terms—one for six weeks, one for nine weeks—June 19 to August 18

Robert C. Line, Dean, School of Business Administration C. H. Clapp, President

### Nebraska

Lincoln School of Commerce Lincoln

Shorthand: Letha P. Scott; Typewriting: Trilla Gardner; Bookkeeping: D. B. Marti; Secretarial Training: Gertrude Beers

June 5 to August 25 W. A. Robbins, President

NEBRASKA STATE NORMAL COLLEGE CHADRON

Elementary Shorthand, Elementary Typewriting, Office Practice, Business Correspondence: Margaret Lieneman; Elementary Accounting, Penmanship, Commercial Law: Maude Ummel

Two terms—June 5 to July 12; July 12 to August 18 Maude Ummel, Head of Department Robert I. Elliott, Director of Summer School

Nebraska State Teachers College Wayne

Beginning Typewriting: Arlie Sutherland; Accounting: Myrick Sublette; also courses in Economics, Law, Finance One term of six weeks; opens

U. S. Conn, President

June 4

STATE TEACHERS COLLEGE PERU

Courses in Beginning Shorthand, Beginning and Advanced Typewriting, Beginning Accounting, Commercial Law, Palmer Penmanship

Two terms—June 12 to July 19; July 20 to August 25 W. R. Pate, President

University of Nebraska, Teachers College Lincoln

Methods of Teaching Shorthand (first term): Gertrude Reers; Methods of Teaching Typewriting (first term): Luvicy M. Hill; also courses in Beginning and Advanced Shorthand and Typewriting, The High School Commercial Curriculum.

Two terms—June 9 to August 4; June 9 to July 21 Luvicy M. Hill, Chairman of

Department R. D. Morits, Director of Summer School

### New Jersey

RIDER COLLEGE TRENTON

Principles of Secondary Education; Teaching of Technique; Vocational Guidance; Curriculum Making; Phychology of Adolescence; Methods of Teaching Shorthand, Typewriting, and Bookkeeping; Educational Tests and Measurements. Instructors: Dr. T. Howard Winters, Dr. C. E. Partch, Prof. Robert E. Williams, Mrs. Emily B. Gibbons, Rita Cosenza, Prof. C. C. Callin

June 20 to August 18 Dr. Joseph W. Seay, Director

RUTGERS UNIVERSITY NEW BRUNSWICK

Teaching of Elementary Business Training, Advanced Book-keeping, and Typewriting; Tests and Measurements in Commercial Education; Principles of Business Education; The Commercial Curriculum; Research Studies in Business Education; Research Problems in Business Education; Research Education; Research Business Education, Instructors: L. A. Rice, Bernard E. La Vigne, William H. Wythes June 26 to August 4

Dean Clarence E. Partch, Director

### New Mexico

New Mexico Normal University Las Vegas

Shorthand Methods, Typewriting Methods, Accounting Methods, Seminar in Commercial Education, Research in Commercial Education, Research in Commercial Education: S. J. Wanous; Secretarial Science, Typewriting: Latham; Book-keeping: Thiel; Economic Principles: Thiel; Economic Problems: Parker; Penmanship Methods: Paynter

Two terms—June 5 to July 14; July 15 to August 18

S. J. Wanous, Head of Department Dr. H. C. Gossard, Director of Summer School

### New York

New York State Col-LEGE FOR TEACHERS ALBANY

Stenography—Speed in Shorthand, Business Practices and Procedures, Methods of Teaching Commercial Subjects. Business Mathematics, Accounting, Commercial Law, Economic Geography, Type-writing, Instructors: Chester Terrill, Harrison Terwilliger, George M. York

July 5 to August 17 M. G. Nelson, Director

University of Buffalo Buffalo

Principles of Business Education, Methods in Introduction to Business, Methods in Shorthand and Typewriting; also Content courses in the

field of business administration, such as Accounting, Reonomics, etc. Instructors; Juvenilia Caseman, Harry I. Good.

July 5 to August 12 C. S. Marsh, Director

COLUMBIA UNIVERSITY
NEW YORK CITY
Stenography (Elementary, Advanced, and High-Speed);
Typewriting (Elementary and Advanced);
Transcription.
Instructors: N. K. Bryant,
W. E. Harned, Miss Z. K.
Macdonald, J. J. Wright

July 10 to August 18 John J. Coss, Director

COLUMBIA UNIVERSITY, TEACHERS COLLEGE
NEW YORK CITY
Teaching of Shorthand, Typewriting, and Junior Business
Training (with demonstration
classes); Curriculum Making
for Commercial Courses in
Secondary Schools; The Reorganization of the Teaching of
Bookkeeping; Teaching
of Bookkeeping; Teaching
of Bookkeeping; Teaching
Techniques in Commercial
Subjects; Objectives of Commercial Education; Problems
in the Psychology of Commercial Subjects. Instructors;
Dr. W. R. Odell, Mrs. Florence Sparks Barnhart, Earl
W. Barnhart, H. Buck'ey, J.
G. Kirk, Mrs. E. R. Stuart
July 10 to August 18
John J. Coss, Director

New York University, School of Education New York City

Principles of Business Education; Principles and Problems of Office Practice; Methods courses in Teaching Introduction to Business, Bookkeeping and Business Practice, Shorthand Theory, Shorthand Dictation and Transcription, Advanced Book keeping (Accounting, Business Law, and Economics), and Typewriting; Business Experience; Business Management of School Activities; Tests and Measurements in Business Social-Business Education; Subjects in Secondary Schools; Research Studies in Business Education; Business Manage-ment of School Activities: Social-Business Subjects in Secondary Schools. Instructors:
Dr. Paul S. Lomax, Seth B.
Carkin, Dr. P. L. Agnew,
Miss H. Reyno'ds, W. C.
Wallace, Mrs. M. H. Ely, L. A. Rice

July 7 to August 16
Milton E. Loomis, Director

SYRACUSE UNIVERSITY

SYRACUSE
Methods of Teaching Stenography, Typewriting, Office
Practice, Commercial Arithmetic, and Bookkeeping and
Accounting: Elementary
Shorthand and Typewriting;
Organization and Administration of Commercial Education.
Instructors: Mrs. K. L. Clippenger, Clinton A. Beed.
Prof. G. Tillford

July 5 to August 11 Dr. Ernest Reed, Director

### North Dakota

STATE TEACHERS COLLEGE MAYVILLE
Shorthand, Typewriting, Accounting: Gena Ostby
June 19 to August 10
C. C. Swain, President

STATE TEACHERS COLLEGE MINOT

Shorthand, Typewriting, Business English: Laura Wurtzel; Bookkeeping or Accounting, Business Mathematics, Business Law, Salesmanship: Paul Seaman; Penmanship Methods: Edna Hood

June 19 to August 11
Dr. George A. McFarland,
President

STATE TEACHERS COLLEGE VALLEY CITY

Typewriting, Secretarial and Office Practice, Business Engish: Florence D. Bailey; Penmanship Methods, Accounting and Financing for Extracurricular Activities, High School Commercial Curriculum: Carlos C. Crawford

June 19 to August 11 Carlos C. Crawford, Head of Department Dr. Carlos Eben Allen, Presi-

Ohio

Athenaeum Teachers College

CINCINNATI
Advanced Stenography: Eleanor Skimin; also a course
in General Bushness Practice
June 26 to August 4

Rev. Carl J. Ryan, Director of Summer School

DENISON UNIVERSITY GRANVILLE

Content and Methods Courses in Shorthand, Typewriting, and related subjects: Marie Maunus

June 14 to August 11
E. B. Hawes, Dean of the Summer School and Head of the Department of Education

MIAMI UNIVERSITY

Content and Methods Courses in Shorthand and Typewriting: Mary W. Jones; Accounting: C. H. Sandage; Business Law: H. H. Beneke

Two terms—June 19 to July 28; July 31 to September 1 E. J. Ashbaugh, Dean of the School of Education and Director of the Summer School

Ohio University, School of Commerce Athens

Beginning Shorthand, Beginning and Advanced Typewriting: Mrs. Zoe M. Brundage; Methods in Teaching Commercial Subjects: Raiph F. Beckert; Accounting: W. H.

Fenzel, Beckert, C. M. Copeland; Advertising: B. B. Westbrook; Marketing: Roy H. Paynter. (Commerce courses offered only in the first term)

June 12 to August 11
C. M. Copeland, Director of the School of Commerce

WESTERN RESERVE UNI-VERSITY CLEVELAND

Methods of Teaching Shorthand and Typewriting: Thelma Drow; Organization and Administration of Commercial Education: William Moore June 19 to July 28

Charles W. Hunt, Director of Summer School

### Oklahoma

EAST CENTRAL STATE
TEACHERS COLLEGE
ADA
Content Courses in Shorthand.

Content Courses in Shorthand, Typewriting, and related subjects: Myrtle Sturdevant May 22 to July 20 Juliette Smith, Secretary

Northeastern State Teachers College

TAHLEQUAH
Shorthand, Typewriting, Commercial Law, Secretarial
Training and Office Practice,
Methods of Teaching Commercial Subjects in Secondary
Schools: R. N. Tarkington
Two terms—May 22 to July
21; July 21 to August 11
R. K. McIntosh, Registrar

Northwestern State Teachers College

Courses in Shorthand, Typewriting, and related subjects, including Methods Courses May 22 to July 21

Alice Eckel, Head of Department

Dr. Thomas C. Carter, Director of Summer School

OKLAHOMA AGRICULTURAL AND MECHANICAL COLLEGE STILLWATER

Beginning Shorthand and Typewriting: Irma Crowe; Intermediate Shorthand, Advanced Typewriting: Maye Hylton; Dictation and Methods of Teaching Shorthand: Willard Rude; Methods of Teaching Typewriting: Hylton; Methods of Teaching Book-keeping: Mr. Merrell

May 27 to July 22 Willard Rude, Head of Department

partment Dr. Herbert Patterson, Director of Summer School

Southeastern Teachers College Durant

Typewriting, Shorthand, Business English, Secretarial Studies: L. Floyd Pierce; A Survey of Commercial Education: Pierce; Accounting.

Commercial Arithmetic: H. S. Bates; Commercial Law: R. W. Adkisson

May 22 to July 21 Eugene S. Briggs, President

Southwestern Teachers College Weatherford

Shorthand: Mrs. Vada Mae Guest; Typewriting, Bookkeeping: H. N. Doughty; also courses in Commercial Law, Secretarial Training, Business Correspondence

May 22 to July 21

H. N. Doughty, Head of Department
C. W. Richards, President.

UNIVERSITY OF OKLAHOMA NORMAN Methods of Teaching Shorthand and Typewriting: Rose Leske

June 6 to August 3
Ellsworth Collings, Director
of Summer School

### Oregon

NORTHWESTERN SCHOOL OF COMMERCE PORTLAND

FORTLAND
Shorthand Theory and Methods: Mrs. Esther A. Short,
Ethel M. Brackin; Typewriting Theory: Marle Prather;
Accountancy: Chad Newhouse,
Charles D. Lazenby; Salesmanship: Newhouse; Junior
Business Training: Charles
F. Walker

Two terms—June 5 to July 14; July 17 to August 25

Charles F. Walker, Director

### Pennsylvania

ELIZABETHTOWN COLLEGE

Shorthand, Typewriting, Commercial Law, Commercial Geography, Economics, Retail Selling, Instructors: Prof. L. Bowman, Dr. T. K. Musick, Prof. E. Wenger

June 19 to July 29 A. C. Baugher, Director

GROVE CITY COLLEGE GROVE CITY

Stenography, Typewriting, Junior Business Training, Economic Geography, Commercial Law, Economics, Accounting, Advertising, Commercial Education, Instructors: Prof. G. J. Bridges, Miss L. Kilchenstein, Professor Collings, Prof. F. H. Sumrall, Prof. R. G. Walters

June 26 to August 4 Dr. W. C. Ketler, Director

MARYWOOD COLLEGE SCRANTON

Methods in Shorthand, Typewriting, Office Practice, Bookkeeping and Accounting. Instructors: Sisters M. Virginia, M. Coronata, M. Rosanne, M. Saint Agnes June 23 to August 3

June 23 to August 3
Sister M. Immaculata, Direc-

STATE TEACHERS COLLEGE BLOOMSBURG

Shorthand and Typing Theory; Bookkeeping and Accounting; Methods of Teaching Bookkeeping, Shorthand, and Typewriting; Junior High School Commercial Courses

June 26 to August 5

Francis B. Haus, Director

STATE TEACHERS COLLEGE INDIANA

Introduction to Rusiness Business Mathe-Teaching; matics, Typewriting, keeping and Acc Accounting Commercial Geography, Shorthand, Business Organization and Finance, Business Cor-respondence, Business Law, respondence, Bu Shorthand and Applications, S Typewriting Applications, Salesmanship, Business Law, Stenographic Office Practice, Methods of Teaching Commercial Courses, Junior High School Commercial Courses, Tests and Measurements in Commercial Subjects, Economics, Secretarial Practice, Clerical Practice and Machines

June 19 to July 29 G. G. Hill, Director

TEMPLE UNIVERSITY PHILADELPHIA

Methods in Teaching Shorthand and Typewriting, General Business Training and Methods, Office Practice and Methods. Instructors: Miss Gillman, Mr. Kane, Miss M. M. Leidy

Ju y 3 to August 11

UNIVERSITY OF PITTS-BURGH PITTSBURGH

Curriculum Making for Commercial Courses; Methods and Materials of Teaching Typewriting, Shorthand, and Junior Business Training. Instructors: D. D. Lessenberry, Miss L. S. McCarty July 3 to August 11

F. W. Shockley, Director

### Rhode Island

BRYANT-STRATTON COLLEGE PROVIDENCE

Rookkeeping: Nelson J. Gulski; Penmanship: Herbert C. Russell; Shorthand: Blanche G. Stickney; Typewriting: Grace M. Lamoureux June 26 to August 18

Harry L. Jacobs, Director

### South Dakota

NORTHERN STATE TEACH-ERS COLLEGE ABERDEEN

Secretarial Science, Business Correspondence: Miss Schoenleber; Methods of Teaching General Business Subjects, Salesmanship, Commercial Law, Business Mathematics: Merle Trickey

June 5 to July 14 (Continued on page 338)

# Economic Illiteracy Must Go

"Junior Business Education has been too much concerned with clerical skill training," says one of this country's clearest-thinking commercial educators. "The new type of junior business education must emphasize, instead, the Economics of Business. Economic illiteracy must go. . . . "

Commercial teachers and administrators are doing a great deal of serious thinking these days about the content and objectives of business courses. Here are a few expressions from educational leaders that show the trend of their thoughts with particular reference to the business courses offered in the junior high school—

General courses, contributing to the functional development of principles, alone give promise of final acceptance in the junior high school curriculum.

The increasing age of initial employment and of compulsory education is bringing about a broadened program of required general courses and the elimination of vocational specialized training in the junior high school.

Initial commercial courses

for junior high school grades have passed from vocational training courses of an elective type to general courses of a required type, interpreting to the young adolescent mind his everyday business environment.

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# General Business Science Shows the Way

Through the content and accompanying projects of General Business Science (Jones, Bertschi, and Holtsclaw), the young adolescent learns how to interpret and conform with the customs and practices of modern business and how to use business services to further his own economic welfare.

General Business Science devotes no time to the development of relatively unimportant clerical skills for which the young adolescent mind will have almost no immediate use, because of the extended period of compulsory education and the closing of the doors of business to boys and girls of junior high school age.

A clerical training course violates the accepted philosophy of the junior high school movement and is directly opposed to the present trends in junior high school development.

Liberal exchange terms for your present junior business training texts make the cost of the adoption of General Business Science very low.

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Write our nearest office at once for complete information about the three Parts of General Business Science, its project pads, free unit tests, and teaching outline for a one, two, and three-semester course.

Merle Trickey, Head of De-David Allen Anderson, President

SPEARFISH NORMAL SCHOOL SPEARFISH

Shorthand: Mrs. H. F. John Guy A. son; Typewriting: Bookkeeping Penmanship: Ida D. Henton June 7 to July 16

Ida D. Henton, Head of Department Dr. E. C. Woodburn, Presi-

University of South DAKOTA VERMILLION

Content Courses in Shorthand and Typewriting: Lucile Pixley June 5 to July 14

Dr. Wm. H. Batson, Director of Summer Session

### Texas

BAYLOR UNIVERSITY, SCHOOL OF BUSINESS WACO

Shorthand and Typewriting: Lottie Mae Williamson; Book-keeping and Accounting: Mon-roe S. Carroll; also courses Carroll; also courses in Office Management and Business Correspondence

Two terms—June 5 to July 12; July 13 to August 18 Prof. Monroe S. Carroll, Director, School of Business W. S. Allen, Dean and Director of the Summer Session

Southwest Texas State Teachers College SAN MARCOS

Methods in Commercial Edu-

Two terms-June 5 to July 15; July 17 to August 25

C. E. Evans, President L. H. Kidd, Registrar

STEPHEN F. AUSTIN STATE TEACHERS COLLEGE

NACOGDOCHES Shorthand and Typewriting: M. Jessie Hickman; Book keeping: J. H. Wisely Two terms-June 7 to July 17; July 19 to August 31 H. Wisely, Head of De-

partment W. Birdwell, Director of Summer School

SUL ROSS STATE TEACH-ERS COLLEGE ALPINE

Shorthand, Typewriting, Bookkeeping, Business Law, Salesmanship: P. M. Penrod Two terms-June 6 to July 17; July 19 to August 26 H. W. Morelock, Director of

TEXAS COLLEGE OF ARTS AND INDUSTRIES KINGSVILLE

Summer Session

Shorthand and Typewriting: Clara W. Glass; Bookkeep-ing: George W. McCulley; George W Business Insurance Business English: J. R. Man-

Two terms - Opening date,

J. R. Manning, Director the School of Business Administration E. W. Seale, President

WEST TEXAS STATE TEACHERS COLLEGE CANYON

Shorthand, Business Law: W. E. Lockhart; Typewriting: H. R. Jennings; Bookkeeping: Bookkeeping: Lockhart and Jennings

Two terms-June 5 to July 16; July 17 to August 26

W. E. Lockhart, Head of De-J. A. Hill, President

### Utah

UTAH AGRICULTURAL COLLEGE LOGAN

Shorthand Theory: Joyce Rich-Typewriting Theory: ardson; Mark Neuberger; Accountancy: Prof. P. E. Peterson

James H. Linford, Director

### Vermont

University of Vermont BURLINGTON

Economics, Industrial and Social Conditions, Typewriting, Teaching of Secretarial Sub-

July 5 to August 12 Bennett C. Douglass, Direc-

### Virginia

STATE TEACHERS COLLEGE FREDERICKSBURG

Beginning Typewriting; vanced Typewriting, Short-hand, and Accounting; Office Practice; Marketing; Business Law: Matheda Law; Methods in Bookkeep-Typewriting, and Shorthand; Business Organization; Secretarial Procedure. structors: Alice Wi Wakefield, structors: Alice Dr. J. H. Dodd

Two terms-June 12 to August

Dr. M. L. Combs. Director

University of Virginia, Summer Quarter University

Shorthand (Elementary, Intermediate, and Advanced); The Teaching of Shorthand, Typewriting, and Bookkeep-Secretarial Practice;

Typewriting (Elementary, Intermediate, and Advanced); Bookkeeping (Elementary and Intermediate); Law; Economic Geography; Economics. Instructors: Mr. Grimes, Mrs. Bundy, Mr. Kanady, Mr. Hulvey, Mr. Starnes, Mr. Hyde, Mr. Pollard, Mr. Hall, Mr. Pinch-beck, Mr. Berglund

Two terms-June 19 to September 2 Charles G. Maphis, Director

### Washington

STATE COLLEGE OF WASHINGTON

PULLMAN Shorthand Theory: Skimin, Mrs. V. Nolan; Type-writing Theory: Mrs. Nolan; Shorthand and Typewriting Methods: Skimin; Account-ancy: C. R. Niswonger; Supervision: L. Gilbert Dake; Jun-ior Business Training: Nis-Dean A. A. Cleveland, Di-

UNIVERSITY OF WASHING-SEATTLE Accountancy: Cox: Account-

ancy Mothods: Draper Two terms-June 14 to July 21; July 24 to August 24 David Thomson, Vice President. Director

### West Virginia

MARSHALL COLLEGE HUNTINGTON Elementary Accounting, Com mercial Law, Principles of Advertising. Instructors: C. Carpenter, Prof. L. A. Wolfard June 5 to August 4

J. B. Shouse, Director

# Supervision Difficulties

FRANK C. CHRIST, of the Oak Lane Country Day School, Oak Lane, Philadelphia, Pennsylvania, has contributed to the January number of the High School Teacher a most worthwhile article on "Major Difficulties in the Supervision of Business Edu-

Mr. Christ shows how, because of the enormous increase in the enrollment in business subjects in our high schools-an increase of 2,000 per cent between 1900 and 1928-supervision of these subjects has, of necessity, been makeshift and inadequate, due, largely, to the lack of trained supervisors. In general, supervisors have been drawn from the teaching

staff. In smaller schools, supervision has been in the hands of the principal, whose time is too full of general administrative matters for him to be able to give the Commercial Department much thought.

He discusses in detail the chief difficulties the supervisor faces: equipment problems, the layout of the business education department, the curriculum, and teacher personnel.

Mr. Christ feels that the best solution to these difficulties can be accomplished by providing for all-round training in teacher-training institutions and by setting up programs in our colleges and universities to provide adequate training for business supervisors.

### A New and Easy Method for

# Teaching the Prefixes and Suffixes of Chapters X and XI of the Gregg Shorthand Manual

### By Clyde Insley Blanchard

Director of Research, The Gregg Publishing Company, New York City

THIS article outlines an easy and interesting teaching plan for Chapters X, XI, and XII of the Gregg Shorthand Manual, and Chapters X to XX of "Gregg Speed Studies." It is suggested that, as soon as Chapter IX is completed, this plan be substituted for the one now given in The Gregg Publishing Company's 1932-1933 Course of Study.

### Purpose of Plan Twofold

1. The plan distributes the learning of the theory principles of the last three chapters of the Manual over a broad dictation area, covering Chapters X to XX of "Gregg Speed Studies." It thus dilutes the comparatively difficult vocabulary in the last chapters of the Manual and makes the mastery of the theory easy and interesting through motivated drills based on the day's dictation assignment.

2. It brings about a needed articulation of the theory course and the advanced course by supplying a gradual transition from theory to dictation through enriched dictation assignments in "Gregg Speed Studies."

The present theory course in many schools completes only fourteen chapters in "Gregg Speed Studies"—the first twelve chapters, which contain graded dictation material, and two additional chapters, which contain ungraded material. The plan here outlined makes it possible to complete all twenty chapters of "Gregg Speed Studies" in the same length of time. The increased time allotment for dictation gives the opportunity to effect the desired transition from the mechanizing theory drills to the functional use of shorthand skill.

### Suggestions for Use of Outline

The outline calls for a brief preliminary presentation of the theory principles in each of the three chapters, X, XI, and XII. This presentation should be made at the blackboard, wherever possible, and should precede any study assignment on the new principles. An

understanding of the principles and a visual recognition of the textbook and the blackboard outlines are the two main objectives of the preliminary presentation.

Each prefix and suffix has been placed in the teaching outline as it occurs in the daily dictation assignments in "Gregg Speed Studies." The outline specifically designates the order in which the prefixes and suffixes can be most advantageously mastered.

While the outline covers sixty average classroom periods, it is not necessary to complete all sixty periods in order to obtain the necessary drill on the prefixes and suffixes. Every prefix and suffix in Chapters X and XI will have been drilled upon at least twice and the majority of them four times at the end of the fiftieth period of the outline.

When the teaching outline specifies a drill on a prefix or a suffix, the teacher should select a certain number of appropriate words for practice. The words chosen for the first drill may be those of the highest frequency, with their derivatives. The number of words chosen will be governed by the time available for the drill. At least five and preferably ten words should be the minimum selected for each drill. In subsequent drills, those already practiced can be reviewed and others added until the entire list has been covered.

### Sources of Word Lists for Drills

Word lists suitable for these drills may be obtained from the following sources:

The Gregg Shorthand Manual, Chapters X to XII

Key to Gregg Speed Studies

5,000 Most-Used Shorthand Forms

Gregg Shorthand Dictionary, especially pages ix-xii

Word and Sentence Drills (Markett)

Teaching Gregg Shorthand by the Analytical Method (Frick)

The Rhyming Dictionary of the English Language (Walker) Those interested in organizing these word lists according to word frequency will find part of their work already done if they will consult the Learner's Department of The Greeg Writer for the months of December, 1930; May, 1932; December, 1932; and March, 1933. Thorndike's "Teacher's Word Book of 20,000 Words" (Teachers College, Columbia University, 1931) is recommended for those wishing more extensive frequency groupings.

### Drill Procedure

The specific purpose of the drills is the mastery of the prefixes and suffixes of Chapters X and XI—not the mastery of the individual words. This mastery is much more easily accomplished through the dictation of a large list of words written a few times than through a small list of words repeated many times.

The prefix or the suffix itself is, of course, written just as many times in either case, but in the longer list of words the student meets the principle to be learned in many different associations, which continually test his ability to break down the individual words into their correct shorthand parts. The pedagogic value of this broader type of drill is immediately evident, to say nothing of its appeal to both teacher and pupil from the interest factor.

The following procedure for the presentation of each drill is recommended:

- 1. In preparation for the drill, consult the shorthand dictionary (Anniversary Edition) for the correct outline for each word.
- 2. Place the drills for the day on the blackboard in shorthand before the class assembles.
- 3. Review briefly the prefix or suffix that is being illustrated in the list of words.
- 4. Read the outlines of the first drill to the students and then have the students read them twice in concert as rapidly as they can.
- 5. Dictate the outlines slowly, at the same time examining students' notes if practicable.
- 6. Have students check their outlines against the blackboard copy and make necessary corrections quickly.
- 7. Redictate the list, have it read back in concert and rechecked.
- 8. Follow the same procedure with each of the other drills for the day. If interest seems to be lacking, separate each drill with part of the day's assigned dictation.

### A Few Don'ts

1. Don't require the students to look up the meaning of each word in the drills. Confine all dictionary work to the vocabulary of the letters in the daily dictation assignment.

2. Don't require the students to practice an outline more than three times. The course of study calls for several reviews of each drill and these reviews, plus the automatic review contained in the daily dictation, will supply sufficient repetition practice.

3. Don't, therefore, restrict the practice to a few words of high frequency. Drill on as many different words as time permits.

4. In the endeavor to stress the learning of the theory of Chapters X to XII, do not encroach upon the time allotment for the day's dictation. Prepare in advance for each period a time schedule that will protect the dictation assignment. If it is found that there is not sufficient time for a thorough treatment of the entire assignment as given in the teaching outline, drop a portion of the vocabulary review drills.

### "Progressive Exercises"

The tests in "Progressive Exercises" for Chapters X, XI, and XII have been deferred in this outline until such time as the student has had the necessary drills on the theory principles involved. The unit tests are scheduled as follows:

Unit	Period
28	36
29	40
30	12
31	33
32	43
33	43
34	21
35	24
36	24

### Chapter XII

This chapter, consisting mainly of geographical names and a short dictionary of useful words, is covered thoroughly in the outline. The names and addresses of the letters in "Gregg Speed Studies" give a continual drill on this chapter and the outline provides several reviews of the short vocabulary of Par. 246.

It is hoped that the foregoing plan will enable theory teachers to push up the final new-matter speed requirement for the theory course to a minimum speed of 75 to 80 words a minute. It is also hoped that the plan will hasten the elimination of the present artificial and harmful division of shorthand into two distinct courses—elementary and advanced. The sooner this is accomplished and the shorthand course made one fluid, homogeneous course, the sooner many of our shorthand speed-building problems will disappear.

## A Teaching Plan for Chapters X to XII

of the Gregg Shorthand Manual and Chapters X to XX of "Gregg Speed Studies" With Special Emphasis on the Presentation of the Prefixes and Suffixes in the Manual, Pars. 209, 214, 227, and 230

### Basic and Supplementary Text Materials

GREGG SHORTHAND MANUAL. For theory principles.

GREGG SPEED STUDIES. For graded and ungraded dictation material.

PROGRESSIVE EXERCISES IN GREGG SHORTHAND. For the testing of each theory unit and for supplementary vocabulary building.

GREGG WRITER TRANSCRIPTION TESTS (issued monthly and distributed without charge by The Gregg Writer, 270 Madison Avenue, New York, New York). For standardized tests of transcribing ability.

### CHAPTER X

### Period

### Assignment

- 1 Manual, Chap. X, Pars. 209-212, Gregg Speed Studies, Par. 152.
- 2 Manual, Par. 213. Prefixes: contr, constr, restr.
- 3 Manual, Pars. 214-216.
- 4 Manual, Par. 217. Prefixes: magn, Mc, recl, susb.
- Manual, Pars. 218-224. Gregg Speed Studies, Pars. 153-157.
- Manual, Par. 225; review Pars. 218-224.
- Gregg Speed Studies, Letters 48-52. Prefixes: incl, post, circu.
- Gregg Speed Studies, Letters 53-57. Prefixes: short-ship, centr, agr, para.
- Gregg Speed Studies, Letters 58-59; Arts. 60-62. Prefixes: trans, super-supr, distr-destr.
- 10 Gregg Speed Studies, review pp. 139-149; Man-ual, review Par. 224. Prefixes: intr-inter, under, over, retr, restr. Gregg Writer Transcription Test.

### CHAPTER XI

### Period

### Assignment

- Manual, Chap. XI, Pars. 227-228. Gregg Speed Studies, Pars. 160-161.
- Manual, Par. 229; review Par. 227. Test on Unit 30; Progressive Exercises 30. Suffixes: Test on gency, pire.
- 13 Manual, Pars. 230-231.
- Manual, Par. 232. Suffixes: logy, egraph, stic, flict, nment, hood.
- Manual, Pars. 233-235. Gregg Speed Studies, Pars. 162-163 (optional). Prefix: retr.
- 16 Manual, Par. 236; review Par. 235.
- 17 Gregg Speed Studies, Letters 63-71. Suffixes: sure, ure-ture, ograph, icle, ship, ward.
- 18 Gregg Speed Studies, Letters 72-75. Prefixes: electr-electric. Suffixes: city, sult, position, wity, nal-tual, gram, quire.
- 19 Gregg Speed Studies, Art. 76. Prefixes: intelenter-intr. Suffixes: pute-putation, cient-ciency.
- Gregg Speed Studies, Arts. 77-78. Prefix: trans. Suffixes: stic, pose, bility, lity. Gregg Writer Transcription Test.

### CHAPTER XII

### Period Assignment

- 21 Manual, Chap. XII, Pars. 238-240.\* Test on Unit 34: Progressive Exercises 34.
- Manual, Pars. 241-245. Prefixes: reel, susp, magn. Suffixes: hood, gency
- Manual, Pars. 246-247. Manual, Par. 246 cont.; review Pars. 240, 245, 247. Tests on Units 35 and 36: Progressive Exercises 35 and 36.
- 25 Gregg Speed Studies, Pars. 168-169. Prefixes: circum, distr, super. Suffixes: nsive, jure-jury, ical
- Gregg Speed Studies, Letters 79-83. Prefixes: detr-deter, short-ship. Suffixes: fication, spect-
- Gregg Speed Studies, Letters 84-87. Suffixes: scribe-scription, pire, tic.
- Gregg Speed Studies, Arts. 88-90. Prefix: multi. Suffixes: rity, ulate-ulation, ship. Gregg Writer Transcription Test.

### GREGG SPEED STUDY XIII

### Period Assignment

- 29 Letters 91-96. Prefixes: contr, electr. scribe, city, ure.
- Letters 97-101. Prefixes: instr, constr. Suffixes: ulate, nal.
- Articles 102-103. Prefixes: self, under. Suffixes: nment, lity, rity, ture, quire.
- Letters, pp. 211-212 (to be written in shorthand). Prefixes: extr-exter. Suffixes bility, sure. Gregg Writer Transcription Test.

### GREGG SPEED STUDY XIV

### Period Assignment

- Letters 104-109. Prefix: grand. Suffixes: ward, pose, sure. Test on Unit 31: Progressive Exercises 31.
- Letters 110-114. Prefixes: counter, Mc-magn, incl, para.
- Articles 115-116. Prefixes: extr, enter. Suffixes: icle, ograph, cient.
- Letters, pp. 225-226 (to be written in shorthand). Prefixes: ant, center, distr. Suffixes: egraph-y, spect. Test on Unit 28: Progressive Exercises 28. Gregg Writer Transcription Test.

(Continued on page 360)

# Shorthand Sugarplums

By Ethel H. Wood

The State College of Washington, Pullman, Washington

LITTLE nonsense now and then ..."why may shorthand classes not have once in a while a taste of this generally enjoyed relish? Classes go stale, all of them, occasionally. Students will sit and gaze out of the windows or into space in spite of one's best pedagogical efforts to keep them interested along strictly business lines. Such times demand something new and different. Why not a round of nursery rhymes? It is astonishing how quickly the wandering thoughts snap back when dictation starts on Three Blind Mice or Little Jack Horner. scheme can be used equally well with beginning classes, with second-semester classes for drill on outlines, and with advanced classes for speed practice.

### Good Fun and Good Practice, Too

As a concrete example, take "Heigh diddle diddle, the cat and the fiddle, The cow jumped over the moon. The little dog laughed to see the fun. And the dish ran away with the spoon." This contains practically no word which a pupil working on the fourth unit cannot write; cow and away, introduced as brief forms, will be remembered. Mary, Mary, Quite Contrary anticipates the disjoining principle, and in this connection contrary is easily learned, especially if there is a Mary in the class. Garden can be taught, and the troublesome shells reviewed pleasantly. After about three minutes of such dictation the class will be on its toes with eagerness-and smiling. What is easier to teach than a smiling class?

### Let Students Choose Own Rhymes Too

If time permits—and who would begrudge the time spent in learning frightened and muffett and tuffet and spider, theory words, all of them, even though not found in strictly business vocabulary—it is well to let the class suggest rhymes, or to let each one work out his own, asking questions about unfamiliar words, and then dictating them to the rest of the class. Of course here there is danger of incorrect or careless writing in the haste to

get down familiar material, but the alert instructor, with eyes everywhere at once, reduces this danger to a minimum.

### Bringing the Board into Play

Sometimes it is a workable plan to send six or eight students to the board to work while the others write at their desks. Those at the board can write from dictation, or if the interest is sufficient, the class will suggest couplets. Or perhaps those at the board will enjoy choosing their own verses. After the board work has been thoroughly discussed and criticized, it may be dictated to the entire class. Board work of this kind simplifies greatly the giving of the correct outlines. Occasionally three or four students can work together, putting their results on the board for the rest of the class to see and criticize. Any variation is good which puts the burden of choosing the rhyme on the class rather than the instructor; it creates a better spirit about the whole recitation. Everyone thrills to the joy of creation; beginners who find that with very little assistance they can produce Jack Be Nimble, Jack Be Quick, are apt to think the road to shorthand achievement is, after all, not the rocky one they were commencing to think it.

### "Simple Simon" Helps Build Speed

So much for the beginning classes. The same rhymes can be used in advanced classes for warming-up in speed drills. The thirty or more words of Simple Simon, written for one minute to find the number of words a minute, and then rewritten to find the gain in words, and perhaps a third time for an even greater gain, gives practice in shorthand forms, in ease and facility of writing, and also—perhaps of greatest importance—in the knack of holding long sentences or groups of words in mind while one writes.

Numerous variations of the scheme are possible. The idea is simple, it is easily adapted to class conditions, and—it works!

### NEW BOOKS TO READ

American Business Leaders: A Study in Social Origins and Social Stratification, by F. W. Taussig and C. S. Joslyn (Macmillan).

Bducation and the Social Crisis, by William H. Kilpatrick (Liveright).

Education and the Modern World, by Bertrand Russell (Norton).

How to Get a Job during a Depression, by Warren C. Graham (Association Press)

Social-Business Education in the Secondary Schools, by Herbert A. and M. Henriette Tonne (New York University Press).



A Shorthand Enthusiast's Version of Her Favorite Jingles

### Awards Made in the 1933 Teachers' Medal Test

(Concluded from page 324)

Logan Hart, Los Angeles Junior College, Los Angeles, California
Ada E. Perry, Gardena High School,
Gardena, California
Rose V. McGonigle, Canoga Park

High School, Canoga Park, Cali-

Calista G. Bliler, Bell High School, Bell, California

Ferne Williams, Central High School, Flint, Michigan

f. Gertrude Gould, Jamaica Plain High School, Jamaica Plain, Massachusetts

va L. Connelly, Miss Brown's School, Milwaukee, Wisconsin sther J. Taylor, Calais Academy,

Esther J. Taylor, Calais Academy, ('alais, Maine Margaret Dolores Sellers, San Jose ('ollege of Commerce, San Jose, California

Sister St. Helen of Calvary, C.N.D., Notre Dame Convent, Waterbury, Connecticut

Eugenia, Catholic High M. School, Harrisburg, Pennsylvania

Izetta L. Broitzman, Mt. Carroll High School, Mt. Carroll, Illinois us Wagoner, Gebo High School,

Gebo, Wyoming Irene Kibler, Rossford High School,

ene Kibler, Anderson High Lilah School, Ontonagon, Michigan

High Barbara Murray, Hope St. School, Providence, Rhode Island Martha L. Norstrum, Spencer High School, Spencer, Iowa

Sister M. Ethelfrieda, St. Bonaventure High School, Columbus, Nebraska

Juanita Horne, Crothersville High School, Crothersville, Indiana Margaret L. Hoch, Windsor I School, Stockport, Ohio Windsor High

Mrs. L. B. Conner, Northeastern Bus-

iness College, Sterling, Colorado Frances Hyde, Birchwood, Wisconsin Mrs. E. M. Sathre, Northern Business College, Bemidji, Minnesota

Martha Z. Schmitt, Orange Union High School, Orange, California

Cecil L. Jones, Alexander Hamilton High School, Los Angeles, California

Florence E. Saunders, Irwin, Pennsylvania

Lucy M. Bartholomew, Hempstead, New York

Mary A. Catterson Bond, University High School, West Los Angeles. California

May J. Butler, Abraham Lincoln High School, Los Angeles, California

Margaret E. Keefe, University High School, West Los Angeles, California

7. H. Wagner, Polytechnic School, Los Angeles, California

Marguerite Stuart, Los Angeles City Schools, Los Angeles, California

Manuela C. Cabanillas Font, High School, Lares, Puerto Rico

Dora Jensen, St. Paul Park High School, St. Paul Park, Minnesota

### O. G. A. Membership Winners

Corinne A. Palmer, Utica School of Commerce, Utica, New York Irs. Violet B. Steele, Pottstown High School, Pottstown, Pennsyl-

Adelaide E. White, Saranac Lake High School, Saranac Lake, New

Sister M. Luella, St. Barbara School,

Illinois Chicago, Illinois Beryl R. Philbrick, Brigham Academy,

Bakersfield, Vermont

Vera Habenicht, Powell County High School, Deer Lodge, Montana Mrs. Pearl E. Green, Louann High

School, Louann, Arkansas Irs. Geraldine W. Holden, Hudson Mrs. Geraldine W. Holden, Hud High School, Hudson, New York Collins, Sullins College,

rs. Roy Collins, Bristol, Virginia Sister M. Rosalina, O.P., St. Anne School, Alpena, Michigan Hazel E. Balch. Dover High School,

Dover, New Hampshire
Laura Randell, Fairfax High School,
Los Angeles, California Jessie

essio E. Weaver, Torrance High School, Torrance, California live Cameron Ruth, Los Angeles Junior College, Los Angeles, Cali-

fornia Edna M. Rogers, Wapato High School, Wanato, Washington

J. Manganella, Ambridge Senior High School, Ambridge, Pennsylvania

Miss E. L. Baumgarth, Jones Commercial College, St. Louis, Missouri Eleanor J. Graham, Glidden, Wis-

Melissa Stedman, Bell High School, California

Bell. California
Stater M. Lucille, St. Joseph High
School, Pittsburgh, Pennsylvania
Priscilla N. Little, Wrentham High
School, Wrentham, Massachusetts
Ruby M. Brooking, Washington-Lee

High School, Clarendon, Virginia Sister Florence Weiland, Mt. Angel Academy and Normal School, Mt. Angel, Oregon

Sister Mary Alverna, St. Ma emy, Alexandria, Virginia Academy, Alexandria, Virginia
Mildred M. Smith, Lambertville High

School, Lambertville, New Jersey
Mary A. Ailen, Oxford High School.
Oxford, Pennsylvania
Kathryn Hentges, Columbus Normal

School, Sioux Falls, South Dakota

Mrs. L. Rickels, U. S. Veterans' Hospital School, Legion, Texas Martha Detmer, Butler County Busi-ness College, Hamilton, Ohio

Clara B. Westgate, Marine City High School, Marine City, Michigan Christine A. Donovan, Stoughton High School, Stoughton, Massachusetts Myrtle Gaffin, Iowa State Teachers Collara, Carlos Wills, Lucy

College, Cedar Falls, Iowa Elizabeth N. Thomas. Girls' Central School for Secretaries, Brooklyn,

School New York Ontario High School, Ontario, Nellie Oregon

Shaw, Amarillo College, Amarillo, Texas Elsie M. Kain, Stevensville, Montana Carrie S. Bledsoe, Bledsoe School,

Topeka, Kansas

heresa Brown, Richmon School, Richmond, Maine Theresa Richmond High M. Carroll High Beougher,

School, Carroll, Ohio School, Carroll, Onlo stherine V. Levere, Central High School, Providence, Rhode Island braine Hartmann, Denmark High Catherine Loraine School, Denmark, Wisconsin

label Benash, Kewaunee School, Kewaunee, Wisconsin Mabel Flora Miller, Brillion High School,

Brillion, Wisconsin
Mabel B. Young, Chesterton
School, Chesterton, Indiana
Rella M. Johnson, Northeastern Busi-

ness College, Sterling, Colorado Lillian Powers, Houlton High School, Houlton, Maine

Parker, High School, Decatur, Illinois

Sister M. Salesia, St. Peters Commercial High School, Newark, New Jersey

School, Fifield, Wisconsin

Pearl B. McEndree, Los Angeles High
School, Los Angeles, California

L. E. House, San Jose College of Commerce, San Jose, California Irs. Martha Ebersol, Acme Business College, Lansing, Michigan Plara M. Louis, Cullom Community High School, Cullom, Illinois

Clara Clifford C. Leuenberger, Brush High School, Brush, Colorado ose M. DeVeto, Waterville, New Rose

York Irs. W. S. Brooks, Pineville High School, Pineville, West Virginia Mrs.

Mary A. Hoagland, Lovelock Consolidated Schools, Lovelock, Nevada Sister M. Clarinda, St. Agnes High School, Los Angeles, California

Irene Mason, Shelbyville High School, Shelbyville, Missouri Elva I. Kershner, Brush High School,

Brush. Colorado Cecyl Lovejoy, Woodbury College, Los

Angeles, California Lucile Theard Neyrey, South-Western Business College, New Orleans.

Louisiana William, Sacred Heart

High School, Van Buren, Maine
Olive Moore, Port Clinton Public
Schools, Port Clinton, Ohio Sister Mary Helena, Catholic College of Oklahoma, Guthrie, Oklahoma

McManiman. Mauch Chunk Township Junior-Senior High School, Nesquehoning, Pennsylvania Elizabeth Keyes, Fairfax High

School, Los Angeles, California

G. Neyrey, South-Western Business College, New Orleans, Louisiana

Dilla Enochs, Yorktown High School. Yorktown, Texas

Mary Waisath, Equality, Illinois Mary A. Woeber, High School, Mara-thon, Wisconsin Mrs. Zella M. Brake, Henryetta, Ok-

Laura E. Tripp, Syracuse Secretarial

York Syracuse, New Carl M. White, Turpin High School, Turpin, Oklahoma

David Hartzell, Balls Creek School, Newton, North Carolina Sister Mary Angelica, St. Charles

School, Peru, Indiana Mosby Hogge, Richmond, Vir-Mrs.

Mabel L. Wright, Los Angeles High School, Los Angeles, California Theresa Going, Venice High School,

Venice, California artha Kasanke, Vocational Martha and Technical High School, Grand Rap-

ids, Michigan Cina McNabb, Elkland, Missouri Sister M. Paul of the Divine Heart,

Academy of the Holy Names, Tampa, Florida Harriet M. Wells, Salem Business

College, Salem. Ohio Attye A. Griffin, Poly Polytechnic High School, Los Angeles, California

# The Dublin Conference

# World Federation of Education Associations

### Announced by Dr. Frances Moon Butts

McKinley High School, Washington, D. C.

TEW Frontiers in Commercial Education" is to be the topic around which the commercial education program of the Fifth Biennial Conference of the World Federation of Education Associations will center at Dublin, Ireland, July 29 to August 4, 1933. The addresses on this thought of the new in commercial education and the related research committee reports will be allocated closely with the general conference theme of "Bilingualism," both in its narrow sense as implying a double-edged tool of expression and from the broader angle of giving expression through the economic activities and institutions of a people to the state of civilization or cultural development to which they have attained.

### Discussions to Take Socio-Economic Slant

The new frontiers in commercial education will thus be considered from the viewpoint of the functional aspects of economic communication and from the more human outlook of training for a combined social and economic language of commerce. There will be addresses on the progress we are making toward the adoption of an international language of commerce, on the problem of standardizing the technical terms and business forms in use among the nations, on universally valid methods of economic training, on evidences of a new culture in commercial education, and on training for a new era of economic planning that should make impossible a recurrence of the world's present state of financial stagnation.

### Committee on Commercial Education to Report

A report of the international research activities of the Committee on Commercial Education will also form a related and important part of the Dublin program, with oral and written reports from the continuing subcommittee chairmen on Recent Books and

Periodicals in Commercial Education; Outlines of Business, Economic, or Commercial Teaching; The Teaching of the Money Concept; Vocational Guidance and Professional Orientation; and The Contribution of Commercial Education Associations and Conventions.

### Plan to Attend

Although too early to announce the names of the speakers of international note who have been invited and are accepting, or even to publish a tentative copy of the program in detail, April is not too early to begin making plans for a 1933 summer trip to Europe with a first important stop at Dublin. The present attractive travel rates should help to make it almost as cheap to go abroad as to remain at home. The Minister for Education of the Free State and many other distinguished educators of Ireland, England, and Scotland are cooperating with the chairman of the Program Committee and European vice president, Thomas Henderson of Scotland, and the chairman of Local Arrangements, Thomas J. O'Connell of Ireland, in their efforts to provide comfort and pleasure for the great number of delegates and visitors expected.

American educators who expect to attend may, for the price of a good-will membership (\$1.00), be put on the Federation's mailing list and have the privilege of receiving first-hand travel and convention information from the executive secretary, Dr. Augustus O. Thomas, 1201 Sixteenth Street, N. W., Washington, D. C. The Commercial Education chairman, Frances Moon Butts, will also welcome inquiries in regard to the commercial education program for the Dublin Conference.

### Officers in Charge

The president of the World Federation of Education Associations is Dr. Paul Monroe, President of Robert College and Constantinople Woman's College, Istanbul, Turkey. In addition to Mr. Henderson there are two other vice presidents: Harry Charlesworth, General Secretary of the British Columbia Teachers' Federation, and P. W. Kuo, Shanghai, China. The secretary is Charles H. Williams, University of Missouri; and the treasurer, E. A. Hardy, Toronto, Canada. The Board of Directors consists of Selma M. Borchardt, Legislative Representative, American Federation of Teachers; Poling Chang, President, Nandai University; Mr. Charlesworth; John W. Critchley, Southport, England; Count Hiro-

taro Hayashi, Dairen, Kwangtung Peninsula, Asia; Mr. Henderson; P. A. Inamdar, Director of Public Instruction, Idar State, India; Mr. Kuo; Uel W. Lamkin, President, Northwest Missouri Teachers College, Maryville, Missouri; D. D. MacDonald, Toronto, Canada; Fred Mander, General Secretary, N. U. T., London; Mr. O'Connell; G. R. Parker, Blackheath, London; Angus Roberts, Durham City, England; P. Seshadri, President, All-India Federation; Otto Tacke, Studiendirektor des Gymnasiums, Germany; and Annie Carlton Woodward, High School, Somerville, Mass.

# Schedule for the Coming International Contest at Chicago Exposition In June

The following details supplementing our February and March announcements of the International Commercial Schools Contest to be held on the grounds of the Century of Progress Exposition at Chicago, June 27 and 28, have been received from the Executive Committee (W. C. Maxwell, Head, Commercial Department, High School, Hinsdale, Illinois; Mrs. Marion F. Tedens, Director of Typewriting Instruction, Chicago Public Schools; and Harold G. Shields, Assistant Dean, School of Business, University of Chicago):

### Purpose and Plan

The prime purpose in conducting the International Commercial Schools Contest is to demonstrate, through contest activities, the development in commercial education.

The program is to be presented on the Chicago Exposition grounds in June because then and there it will claim the attention of laymen and professionals from all over the country.

It is the plan of the executive committee to establish a new type of contest to fill a need long felt by commercial educators. This project will be a test that is comprehensive. It will cover many of the activities of clerical work rather than mere copying on the type-writer or taking dictation in shorthand.

The International Commercial Schools Contest is to be a live demonstration of actual accomplishments in three types of schools: first, Secondary Schools, Junior and Senior

High Schools, Public, Private, and Parochial; second, Business Colleges; third, Accredited Colleges and Universities.

This undertaking is prompted purely by professional motives in an ambition to bring about new standards and to acquaint the public with the achievements of Commercial Education.

### Schedule of Events

[For a complete description of each event, see the March issue.]

### JUNE 27

- 10:00 A.M. Events 7, 8, 9, 28, 29, 30, 37, 38, 39. Divisions I, II, III. Subject: Bookkeeping. Classes A, B, C.
- 11:00 A.M. Events 10, 11, 12. Divisions I, II, III.
   Subject: Machine Calculation. Class A.
   11:30 A.M. Events 19, 20, 21. Divisions I, II, III.
- 11:30 A.M. Events 19, 20, 21. Divisions I, II, III.Subject: Bookkeeping Machine. Class A.1:00 P.M. Event 1. Division I. Subject: Shorthand
- 1:00 P.M. Event 1. Division I. Subject: Shortham (70-word rate). Class A.
- 1:40 P.M. Events 2, 3, 22. Divisions I, II, III. Subject: Shorthand (100-word rate). Classes A, B. 2:20 P.M. Event 31. Division I. Subject: Shorthand (120-word rate). Class C.
- 3:00 P.M. Events 23, 24. Divisions II, III. Subject: Shorthand (130-word rate). Class B.
- 3:40 P.M. Events 32, 33. Divisions II, III. Subject: Shorthand (150-word rate). Class C.

### JUNE 28

- 11:00 A.M. Events 16, 17, 18. Divisions I, II, III. Subject: Duplicating Machines. Class A.
- 2:00 P.M. Events 4, 5, 6, 25, 26, 27, 34, 35, 36. Divisions I, II, III. Subject: Tabulation—letter writing from solid manuscript with envelope addressing, straight copy. Classes A, B, C.

Echoes from the

# International Congress on Commercial Education, at London, England

(Concluded from the March issue)

Excerpts from Sixth and Last Plenary Sessions Topic

WOMEN IN BUSINESS

1S.S. P. G. BAYLEY-PARKER (British Columbia House, 1 and 3, Regent Street, London, S. W. 1)—The 1921 (England) census reveals that there were just under 500,000 women in commerce (excluding clerks and typists) or more than four times as many as at the time of the previous census.

There are over 300 women Company Directors. The Chartered Institute of Secretaries has some seventy women members, while there are over sixty women qualified accountants and many leading statisticians. The exact number of departmental women managers and buyers is difficult to state definitely, but there are many well-known women in such positions. Contrary to popular ideas of women's bent, the engineering and heavy industries possess a great attraction for women, not only for administration but technically and practically. There are on record between 200 and 250 qualified women engineers including electrical, civil, and marine engineers. We have at least two women quarry managers, one of whom also invents crushing plant. Of auctioneers and surveyors there are several fully qualified and many others engaged in property management. The Stock Exchange, Insurance, and Banking interests are also well represented.

The present time offers great opportunities to women, in spite of the world depression, or even because of it. The average woman brings to business that fresh outlook and practical good sense which doesn't acknowledge the idea that you cannot do a thing that way because it has never been done before.

It is essential for women to be educated for business on the same footing as men.

MISS RUTH TOMLINSON, M.B.E. (Secretary of the National Institution of the Boot & Shoe Industry, 7, Tavistock Square, London, W. C. 1)—Qualifications Required for Administrative Posts: Imagination—common sense—understanding—tact—patience—resourcefulness—a mind of her own—analytical mind—impartiality and keen sense of justice—physical fitness.

MISS M. MARTIN-LEAKE (3, Marlborough Gate, London, W. 2)—Roughly speaking, the "sweep" of women into any vocation or trade has been the result of mechanization.

From the beginning of the century to 1918, supervisory posts in offices increased, but the most marked development both in industry and in commerce was that of the so-called "Welfare Movement." During this period a few university women, and some with a high school education, went into industry in managerial positions. Others were doing a modified form of welfare.

But the time has now come when this view of women's work must be reviewed and modified, and a sounder and more businesslike training on the same lines as that of men employed on executive and administrative work must be visualized. Several firms have now set up schemes of training for supervisory posts, and consider both secondary and university trained women. But even in these cases they welcome the woman who has taken her Commerce degree, or who has a thorough knowledge of accounts and knows something of commercial law and of the outlines of business organization.

The business woman must insist that her training shall be included in that of the man. Then, as and when the trade revival comes, she will be able to take her share in that world improvement of factory and office, and of general conditions both in commerce and in industry which must follow that revival if it is to endure.

MONSIEUR HILAIRE MATSAERT, Director of the Commercial and Colonial Institute (11, Avenue Eugene Ysaye, Anderlecht, Bruxelles, Belgium)—Although we find women intelligently managing their homes, their businesses, or their factories, and others occupying public posts and showing themselves equal to their responsibilities, it must be admitted that they are scarcely represented in the Consular services, where they might, nevertheless, be extremely useful and even have great influence.

It would be just, we think, to grant both

sexes the same advantages. Young women, as well as young men, are admitted to commercial and Consular schools and generally do splendid work. What, then, can be the use to them of the degrees granted if the careers are closed to them? It is, indeed, beyond comprehension that a young woman who has obtained a diploma should not be able to make use of it.

We understand that the women attached to the Scandinavian Chancelleries, especially, carry on their duties without any difficulty and with real success. We are, for that matter, convinced that the same is true elsewhere.

We may hope that justice will soon be done in this respect in order that this very desirable progress shall be realized and a frequently

expressed hope fulfilled.

### Excerpts from Sixth Group Sessions Topic

NEW DEVELOPMENTS IN COMMERCIAL EDUCATION SINCE THE WAR

MR. G. H. GATER, C.M.G., D.S.O., M.A. (Education Officer, London County Council, County Hall, Westminster Bridge, London, S. E. 1)—It is no overstatement to say that the period since the War has been characterized by a rapid expansion in the number of students, by better attendance, by remarkable improvements in organization, and by an advance in the standard of work. This applies particularly to commercial education, but, in addition, the whole system of education, from the elementary school to the university, has undergone many beneficial changes which are likely to make their influence felt upon students preparing for a commercial career.

While it must be admitted that full-time commercial education is still deficient in quantity, admirable facilities for evening and part-time education, comprehensive in scope and excellent in quality, go a long way towards

making good this deficiency.

The London County Council and the citizens of London are alive to the importance of commercial education and can regard with justifiable pride the fact that the scheme, which has been carefully built up in the last twenty years, has proved itself to have been conceived on sound lines and to be adapted to the needs of a great commercial center.

DR. LEVERETT S. LYON (Director of Educational Activities and Public Relations, Brookings Institution, Washington) — One major trend in business education in America has been a great upward surge in the number of students. There are now more than a million students enrolled in one type or another of the various business curricula of public and private school institutions. A second major trend has been to broaden its character and to make it more educationally significant.

The private commercial school—the business college—is the oldest institution of all those giving business training in the United States. It had its beginnings in the period 1820 to 1830. The present trend in these schools is to give short, intensive courses for pupils who have had high school and even college training.

The most recent data show that in one state 95 per cent of the students enrolled in private business colleges are high school graduates, and that in a number of states the percentage of such students who have completed high school training is as high as 75. Taking the country as a whole, two-thirds of the students enrolled in business colleges have graduated from high school, and many have had some or all of a four-year collegiate course.

Commercial training, as one of the available curricula, began to develop rapidly in public secondary schools about 1890. There was an enrollment of 160,000 in 1914.

There are now well over 600,000 students enrolled in these commercial curricula. Approximately 20 per cent of all public high school pupils are now enrolled in commercial curricula. In many large cities the proportion is approximately 50 per cent. The trend of growth has been greater for girls than for boys. Two-thirds of the pupils enrolled in secondary business education are girls and the proportion of girls is increasing rapidly.

Business education in the public school began as an imitation of the business college. It consisted, therefore, of technical courses in penmanship, commercial arithmetic, stenography, typewriting, and bookkeeping.

But more recently, and particularly since the War, business education in the public schools has been severely criticized on the ground that it wastes time in preparing for clerical work and, further, that the public high school supported by public funds has above all else an obligation to prepare for citizenship in a democracy. It is urged, therefore, that, through a type of business education which is in no small part economic education, there shall be offered breadth of understanding never contemplated in preparation for clerical duties.

There are three trends of significance in the secondary school business instruction in America: First, an enrichening of the business curriculum by the introduction of more informational material. Second, a tendency to

postpone technical training to the late years of the high school is evident. A third trend is toward teaching the use of mechanical office equipment.

Another development in specialized training is in the increase of the amount of salesman-

ship offered.

There are now between 1,300 and 1,500 public junior high schools. Of the pupils enrolled in public junior high schools about 15 per cent are enrolled in business curricula. About six out of every ten of these are girls.

The first trend of commercial education in these schools might be described as exploratory of vocational aptitudes. Emphasis was also placed on the needs of pupils who leave school at the conclusion of junior high school work. While these objectives are still given emphasis in the junior high school business curriculum, the trend here, as in the senior high school, is toward the addition of informational courses.

There are now perhaps between 400 and 500 junior colleges in the United States. Commercial work has been widely introduced into the junior colleges. The subjects offered show clearly that the creative forces at work have come from both high school and university business training. Shorthand, typewriting, bookkeeping—even penmanship and commercial arithmetic—are found in them. On the other hand, banking and finance, business organization and management, are in the curricula of a number of schools.

The American Association of Collegiate Schools of Business now includes approximately forty-members. It has set up standards for admission comparable to those of other professional schools and represents, therefore, American collegiate business education in its best developed form. This Association, however, includes by no means all of the business education at the collegiate level.

In the period since the War the trend for the most part has been toward professional schools in occupying the full time of the student with class meetings during daylight hours. But some strong evening schools which permit the registration of employed persons have

developed.

A majority of collegiate business schools are undergraduate in character. On the other hand, there has been a prominent development of a few graduate schools which require for admission the age, maturity, and general education indicated by a bachelor's degree. There is some tendency toward more graduate work in a number of schools.

The strongly marked trend in curriculum making, say from 1915 to 1928, was definitely away from narrow technical courses and in the

direction of organized programs centering on the problem of business management.

The rapid decline in business activity beginning in 1929 has caused the thoughtful students of business and of business education to become increasingly conscious of the economic implications of business organization and has excited a strong interest in a broader training.

There was a period, falling roughly between 1900 and 1921, when company training attempted widely to copy the methods and forms of the schoolroom. The corporation school, so called, grew up, fashioning its training in the image of academic practice.

In recent years, however, the trend in training by industry has been away from formalism. The tendency has been toward training combined with supervision and by allotting training duties to persons whose major

work is supervisory.

Among the several advantages in training through supervision which company executives report are that such training makes it possible to adjust and readjust educational procedure to changing requirements, to combine mere training with the arousing of an interest and enthusiasm which the more formal company school is incapable of doing, to relate training more intimately to the practical requirements of each situation, and to make it more nearly a part of the general management of the industry.

A marked trend in business education in America since the War has been the effort to guide its development by research. Prior to 1918 there had been applied to business education almost none of that technical research which had already been extensively developed in other fields of education. In the last half decade, however, scientific study of business educational problems has developed rapidly, particularly in relation to the varied problems of the secondary school and to teacher training.

Research has been directed toward vocational analysis, follow-up studies of graduates, and toward possible different needs for small and large and for rural and urban centers. The trend as a result is for objectives, subject matter, and curriculum to be organized more closely in line with findings than has been the case in the past. At the moment there is a marked tendency for those schools which train secondary teachers in other subjects to offer graduate as well as undergraduate professional instruction for teachers of business subjects.

Supervision of business education, widespread in most fields of public high activity, has shown but little recent development in the United States.

[A few copies of April and intervening issues are still available containing the other installments of this report. Orders for these backnumbers should be placed without delay, however, to assure completing your file.]

# O. G. A. TEST COPY

# TATION MATERIA to Shorthand Plates in The GREGG WRITER

Counted at a uniform syllable intensity of 1.40

### From Bin to Biscuit Adapted from the Story of Flour

By Arthur F. McCarty in "Business," May, 1926

Once upon a time, so long ago that his identity has become lost amid the dim aisles of time, a certain man tired of filling his stomach with grain in its raw form, husks and all, and devised the plan of pounding the kernels40 to a sort of paste. He made an arrangement of flat stones, between which the grain could be mascerated by rubbing of one against the other, producing a product that, mixed with water and dried, gave him a sort of cake that tasted good. Thus was born the flour mill.

Only one other industry is older than that of milling grain, and that is the 100 raising of it, which was a going concern when man came upon the scene. Indeed, the claim has been advanced that man180 began grinding wild grain before he began growing it, and if that is true, milling is the oldest of all140 industries.

It is a far cry from the primitive apparatus of the stone-age man to the modern flour mill of 100 today, but the remarkable fact is that until less than forty years ago most of the flour and meal consumed in the world was made by a process based on the age-old method of rubbing two stones together. To this day, there are hundreds of mills in operation in which the grinding is done by millstones, called "buhrstones," differing in noszo important detail from the upper and nether ones told about in the Bible—and they make good flour and meal, too. 340 There are those who will not eat corn bread unless the corn has been cracked in a buhr mill, claiming, with some reason, that the260 process heats as it grinds and brings out a flavor that can be achieved in no other way. If you have ever eaten so of the only real corn bread that is made, being that produced in the rural parts of certain regions south of the Mason and Dixon line, and have asked to be given the recipe for the delectable food. you were told sao that it is made of corn meal from a buhr mill.

Speaking of flavors, a visitor to a modern flour mill asked on going into a large, light, airy room set in the corner of the building on the ground floor, "What is that heavenly see I I smell?"

"Bread-freshly baked bread," his guide

"Do you bake bread in a mill?"

to in order to test the flour and keep it uniform. It is but one of the many tests we are constantly making."

"Do we? Three times a week. We have 380

The room was the laboratory, maintained at considerable expense and presided over by one of the bright young men turned out by the department of chemistry of the University of Minnesota. With his bachelor-of-science sheepskin, he went six months to a school of baking in order to prepare himself460 for the job of watching over the quality of the 2,500 barrels of flour turned out daily by this mill. He was just laying out the loaves-nearly a dozen flaky specimens with the odor remembered by the visitor as inhabiting his mother's kitchen on baking days-and one of them was presented to the caller. The visitor managed to get the loaf home while it was still warm, and, though it was mid-afternoon, 540 he passed directly to the kitchen, where he cut that loaf and as rapidly as possible ate three large slices of the most delicious bread he had tasted for years. A far cry, indeed, from the crude methods of even forty see years ago, for it has been only within the last dozen years or so that it has been thought necessary to maintain chemical laboratories in flour mills.

Wheat has continued through the centuries to be man's chief grain<sup>650</sup> food, with rye a close second. These two grains are the only cereals classed as bread-making grains, for they alone have<sup>640</sup> the glutinous content which gives the dough its stickiness, permits a fermentation that forms gases that expand the loaf in baking, and thus produces "light" bread by forming cells within it. From the standpoint of the flour miller, 650 corn bread isn't bread at all.

Wheat is a kind of grass and probably first grew wild in that cradle of the human<sup>700</sup> race where the waters of the Euphrates and Tigris flow, and also in the valley of the Nile in Egypt. 730 Nobody knows when man first began raising it, but Chinese history reveals that it was one of their most impor-tant to crops as early as 3000 B. C., and speci-mens of the grain have been found in Switzerland amid the to ruins of the stone age. Exceeded in gross value by no other plant food, the annual production in tons" falls below that of corn and potatoes only; and wheat is the most widely disseminated of any food800 used by the human race. Its high place in the affairs of the world has been justly won in many famous campaigns, 85 both military and industrial, in which victory came to the side best equipped properly to feed its soldiers.

The term "mill" is now applied to all industry, so that we have cotton mills, woolen mills, steel mills, and what not; but all these are under heavy debt to the chap who first thought about rubbing two stones to-gether to crush his grain. When he had followed that crude method for a while, some other fellow, perhaps in the stillness of the night as be lay in his cave, thought out a means of placing one round stone above another, the upper to be turned by means 930 of a "sweep" or lever operated by man power, to be followed in time by oxen power and later by water power. Thus the world was given its first conception of applying power, and the present-day system of wheels whirling upon axles and pulleys carrying power impulses over considerable distances is the child of the grain mill, the father of all industry. All machinery of this day grew out of those 1000 feeble efforts to do by mechanical processes what had theretofore been done by the hands of men, a line 1020 of endeavor to which there seems no end. Always, probably, there will be inventors seeking to improve the 1040 already wonderful machines in use.

William Peterson, of Chicago, has a very fine collection of old\*\*ood milling appliances; and elsewhere other specimens have been preserved. One of the earliest was the mortar 1080 and pestle; another consisted of a wedgeshaped stone, behind which the operator sat, rubbing the grain with1100 a smaller stone; later developments brought the real millstone into use, and this was round, always operated1180 in pairs, one above and the other beneath, one stationary, the other to be turned. In the middle of the 1140 upper stone was the "eye" through which the grain ran, following channels between the stones, where a complicated system1100 of furrows or grooves, varying according to the ideas of the maker, permitted the mascerating 1180 action to go on while the flour or meal was kept moving to the outer edge and on out. The word "buhr" comes from the soo old word "buhr stone"—
a grinding stone. In modern times the stones have come mostly from quarries near Paris, France, where the earth contains a very flinty, yet cellular, rock.

The actual invention of the first flour mill to be driven<sup>1840</sup> by water power is credited to Mithridates, an old Persian king, about the year 70 B. C. It<sup>1860</sup> is said that the mill was set up in the palace grounds and that the bakers of Cappadocia were famed for their<sup>1880</sup> bread, due to the excellence of the flour made in the king's mill. Milling has long been considered an honorable<sup>1800</sup> calling and one necessary and vital to society, as evidenced in the Bible passage: "Thou shalt<sup>1830</sup> not take to pledge either the upper or lower millstones"—a law like in purpose and effect to the statutes of <sup>1840</sup> today which exempt the furnishings of a home from the processes of sheriffs and constables for reasons of <sup>1800</sup> public policy. Again, as the little hand mill was outgrown and larger mills were set up to be operated <sup>1800</sup> as a business in which the

miller took his pay in a "toll" of the grain—a certain fraction of that delivered to him—the law took account of the importance of the industry to the well-being of the state by ruling on the "toll" that could be taken, and some of these laws remain in force to this day. In the state of Ohio, for take a tenth and the steam mill an eighth.

The mill that men now 1480 middle-aged knew as boys was a mill of the buhr or millstone type, in which the grinding took place between the chaneled 1880 surfaces of two great, round, flat stones, three or four feet across, six to twelve inches thick and weighing hundreds of pounds 1800 A miller of those days at work "dressing" his millstones was a sight worth watching, for the job of making square and sharp 1850 all the little grooves and channels was one of great nicety. He was stonecutter as well as miller, pecking away 1860 with fairy-light touch with his "pick," making, if skillful, forty or fifty little cracks per inch, all uniformly 1880 spaced and of even depth.

To this mill, which, in the larger towns would have a "set" of four to ten buhrs, the wheat came<sup>1680</sup> in wagons, on the backs of horses, sometimes on men's shoulders. It was invariably sacked, and the same sacks took<sup>1600</sup> the flour home. The boy with a bushel of wheat in one end of a sack and a stone in the other across his horse's<sup>1630</sup> back was a familiar sight.

By that time, the processes of cleaningsifting-out the coarser parts of the grain 1040 berry, such as bran, had progressed from the old sieves made of horsehair to sifters operated by machinery and made of very finely woven wire or of linen. The processes applied to wheat today would have astonished 1660 one of those old millers, for his idea of clean wheat was that which had been well fanned to blow out the chaff, weed<sup>1700</sup> seeds, and some of the dust; such machines as scourers and brushers were unknown. The faddists who maintain that the flour then 1720 made was a better product than that of today either forget or do not know what quantities of dirt and indigestible matter are removed from wheat nowadays before it goes to the grind-That there was more of 1700 ing machines. the outside shell, or bran, in the flour is true, and that it is good for one to eat a certain quantity of bran<sup>1700</sup> or other coarse parts of grain is probably also true. But the modern miller takes out all the bran and gives it 1000 to us as clean as science can make it; and we can eat what we want of bran apart from the white bread with the greater 1890 protein content.

Protein is the muscle builder, and without a sufficient quantity in the diet, \*\*\* malnutrition will result no matter how much food is taken. The protein in the flour also gives it its "strength," that \*\* quality of the dough that makes it rise and that forms a "crust."

A lady sent back a sack of flour to her grocer, 1890 complaining that she couldn't bake with it.

"What was wrong?" the grocer inquired.

"It wouldn't stay in the pan; ran all over the place."

"Send the sack to the mill," said the grocer to his clerk, "and find out what's the matter with it."

At the mill<sup>1920</sup> it was discovered that by mistake a shipment consigned to the grocer had contained a sack of baker's flour. Baker's<sup>1940</sup> flour is much "stronger" than that intended for home use. In the home, where the handling and working are done gently<sup>1940</sup> by hand, flour of medium strength is best, but in the bakery, where the dough is slam-banged by machinery, the<sup>1980</sup> strength must be greater to stand up under such rough treatment, and this is secured by increasing the flour's protein content.<sup>2900</sup>

The chemist gets at least one sample each day, and tests it for moisture, ash, crude fiber, and gluten; but the head<sup>2030</sup> miller may detect something wrong in color or feel at any time and have a sample "run." When bread baking is<sup>2040</sup> over, the loaves are taken to a conference of the heads of the firm and cut open. Some are from flour made in<sup>2050</sup> the mill and some from competitive flour; and if the latter shows up in a better loaf, somebody around that<sup>2030</sup> mill catches "Hail Columbia."

By the time the flour is made, the protein content is referred to as gluten. The big buyers of flour buy by gluten tests, color, and feel, and the bakeries take the flour with high gluten test.

Until<sup>8180</sup> very recently, millers deemed a cleaning by one scouring, after fanning out the oats, chaff, weeds, and dust,<sup>8140</sup> sufficient to prepare the wheat for grinding; and the general impression is that wheat grains are clean enough to eat<sup>8190</sup> as they come from the thresher. Even fastidious persons will take up pinches of wheat from a farmer's wagon<sup>8180</sup> and put them in their mouths—but no miller and grain men do this; for they have seen how much dirt can be scrubbed from a grain<sup>8190</sup> of wheat. In a modern mill, the wheat, before it goes to the rolls that begin the grinding, must pass through ten different<sup>8290</sup> machines. One of the most recent improvements in cleaning devices is a machine that, after the wheat has<sup>8240</sup> been scoured and brushed, cracks each grain open, gently, so as to lay it open at the crease; and another scouring removes<sup>8260</sup> the tiny bit of dirt that lies in that little fold.

Where great quantities of grain go through the mills daily and and where the supply comes from regions of widely varying conditions, the wheat is washed in water. This process is so very generally in Europe, where the grain commonly reaches the mill so contaminated that no other method can remove the dirt. Much of the wheat over there contains garlic, the persistent odor of which lingers in the flour if the grain isn't washed; and no matter how fond certain Europeans may be of garlic, so there are others who want their bread untainted by its flavor. In most of the winter-wheat area of Oklahoma, so Kansas, Nebraska, and Colorado the

rainfall is just sufficient to produce the crop so that smut<sup>2600</sup> is almost unknown and the grain is bright and shining, and there are no

odorous weeds to taint it.

After cleaning, 3430 the wheat is ready to go to the "breaks," which are the five grinding machines, each grinding a little finer, going 3440 between times through a process of sifting and bolting through the finest of silk. The boss of the mill will tell you that 3400 most of the world wants its flour fine and white, and it is the business of the mill to give the world what it wants

world what it wants.

We eat<sup>\$440</sup> less of flour than formerly, and much less than the Italians, who consume miles of spaghetti and macaroni. There was a slogan, "Eat More Bread," and, probably, if we gave it more heed we would be none the worse off and the market for the grain would be enhanced. Within the five-layer overcoat worn by a grain of wheat there lie the protein, the carbohydrates, the fat, the crude fiber, and the moisture to make a complete food. Add a little salt, sugar, milk, and yeast to fit the taste. And there you are! (2568)

[This article can be read by anyone who has completed the Eighth Chapter of the Manual.]

### Key to April "Talent Teaser"

HANDKERCHIEF USED FIRST BY CHINESE

Long before the Christian era, a delicate silk tissue and paper form of handkerchief was used commonly on the land of the lotus flower, and was held in high regard as a sort of talisman.

In Europe, churchmen<sup>40</sup> were the first to use handkerchiefs, and for a long time only priests were allowed to carry them.

were allowed to carry them.

The kerchief was originally a cloth or towel, called a "coverchief," but it gradually came to be called a handkerchief.

Upon the records of Edward IV, in 1480, was an entry of payment to Alice Shapster<sup>100</sup> for making and washing five dozen "handcoverchieffes."

Sweethearts' names and flowers were embroidered on handkerchiefs<sup>180</sup> 323 years ago.

Among the French, it was thought vulgar even to mention a handkerchief. However, 100 Empress Josephine decided that a dainty kerchief would be just the thing to raise to her lips when smiling—to 100 conceal her imperfect teeth. From that day on, handkerchiefs have always been one of the necessities of a complete 100 toilette.

### How Is Your Ambition?

From "Your lob"

### By Harold Whitehead, of Boston University

Not more than one man in a thousand has a definite ambition. Not more than one man in ten thousand attains his ambition.

And here is the reason why.

Most of us have hazy, indefinite ambitionsand, of course, we'e cannot hope to get there if we don't know where "there" is. The few of us who have a definite ambition seldom60 realize that it is impossible to attain it right away. To try to get to the desired position on in life in one jump is like trying to jump to the top of a ladder in one bound.

It's a splendid thing to have 100 a definite ambition and to keep it ever in mind, but the way to get it is to divide it into stages and

climb there bit by bit.

Write down—now—what your ambition is, if you can. Then divide it into the logical<sup>140</sup> steps to it. Having done that, make a list of things you must know and do to successfully hold up (not down) 100 each job leading to

your ambition.

With this in front of you ask yourself, honestly, if you are willing to pay \*\* the price in study and work for success. If not, you have no real ambition, merely an apathetic wish. If you are willing to pay the price, go to it, and your ambition will eventually become an<sup>250</sup> actuality. (221)

### Four Easy Business Letters On Chapter Seven

Dear Mr. Templeton: If you thought there was any danger of your residence catching fire tonight you would have of it insured imme-

Most fires occur during the winter months when it is necessary to keep heavy 40 fires for heating purposes. Insurance in the Firemen's Fund Insurance Company would be valuable 60

in case of loss from fire, wind, or lightning.

I should like to call on you at your office at any time that would be suitable to you. My phone number is Orchard 3669. Very sin-

cerely yours, (99)

Dear Mr. Smith: We are endeavoring to arrange for a pageant to be given in our town soon. I am20 responsible for getting a carpenter to build a proper stage and would like you

to build it for us.

We do not 40 want the beauty of the pageant cheapened by poor scenery, so we will spend whatever is needed. I am<sup>60</sup> positive that you could do this work satisfactorily. We should like a definite reply as to whether we can depend on you. Yours truly, (86)

Dear Mr. Haven: We have your letter of March 27 asking that I try to find the trunk and package that the manager of our Memphis branch left in storage in the baggage room

I saw the agent today. It 40 seems that these two pieces have been mislaid. I shall keep tracing them and notify you as soon as I learn anything of value.

They are not very careful with baggage here, and it is a wonder to me that more trunks are not so lost. Yours truly, (83)

Dear Mrs. Jones: The Garden Club met

yesterday to consider whether to indorse the flower show that a few of the members want to hold in June.

The chairman called the meeting to order, but since so few members were present the meeting was adjourned until next Friday.

We hope you will be able to attend. If we are to hold the flower show we must start the work soon. Very sincerely yours, (73)

### Three Easy Business Letters On Chapter Eight

Dear Sir: You are a resident of this town and should be eager to know something of the person whom you are so electing to office.

I have looked up facts about all the candidates and it will cost you nothing to send a40 request for these facts. I hope this will affect the vote you cast to the extent that it will help to put the best man in o office. Yours truly, (64)

Dear Sir: I am glad to see that all our representatives have made wonderful records for the last two or three<sup>20</sup> months.

In order to prepare one of the best yearly reports that President Jackson has received for a number 40 of years, I should like to have each representative fill in the enclosed blank on certain subjects about which I 60 know little or nothing. I hope to receive some of the blanks in a day or two, but I shall bear in mind that as so some of the men go back and forth from their home towns it is out of the question for them to answer so quickly.

I100 am of the opinion that you ought to receive the new souvenirs in a week or two. Since more and more requests 180 for these are coming in every day, we cannot tell how many of them can be filled immediately. We140 sent in another order some time ago and I am at a loss to understand the delay in receiving16

them. Yours truly, (163)

Dear Mr. Wise: After considering the matter for a few months it seems quite evident that the best, simplest, so and perhaps the cheapest arrangement we can make for our vaca-tion, and be satisfied, is the Grant personally of directed tour through the West. This trip consists of visiting important sections in Colorado, certain e sections of Arizona, and almost every place of importance and scenic beauty in California. 80

While I cannot go into details now I might say that it is the longest, and I believe it is considered100 one of the broadest, tours of the

country.

We feel sure we will enjoy it to the fullest extent. Yours very 120 truly, (121)

### Three Easy Business Letters On Chapter Nine

Dear Mr. Martin: We heard recently about a firm that in 1929 cut its advertising so priation in half, and thus saved \$65,000.

This saving enabled them, in 1930, to call in half their sales force and save a lot of money in salaries, commissions, and traveling60 expenses.

In 1931 they were able to lay off half their office force and factory of employees, thus cutting their payroll by 50 per cent and saving

more money than ever.

As a result of 100 these savings they were enabled, in 1932, to sell out to their leading competitor on 120 his own terms and thus reduce their expense to nothing whatever.

May we have the opportunity of suggesting<sup>140</sup> to you a sensible way to save on your advertising? Yours truly, (153)

Dear Mr. Leslie: Printing consists of three major elements—quality, price, and service.

To furnish the first of is a matter of artistry; to plus it with the second is an accomplishment; to combine them both with the40 third is an achievement.

Our record in these respects can best be judged from the fact that our clients take the high 60 quality of our work and the reasonableness of our prices for granted, but continue to compliment us so for the real personal attention and cooperation we give them.

May we demonstrate our usefulness to 100 you? Yours very truly, (104)

Dear Mr. Ferris: We have your inquiry regarding the additional charge on your ship-ment of auto parts. <sup>30</sup> This shipment went through our factory as a "special," and was given preference over other orders. There is 40 always a slight additional charge for this service.

We hope that you will appreciate the fact that we made 60 every effort to get these goods to you as soon as possible. Yours truly, (74)

### Brief-Form Speed Letters

From "Gregg Speed Building"

Dear Sir: We wish to sell our stock of goods early in May. We are now taking an inventory to see how much<sup>80</sup> we have on hand. We have found that we are unable to take care of all the work ourselves and are arranging to40 get more help for our special sales. We expect to close our business be-fore the first of the year. Can you suggest a<sup>60</sup> suitable location for us in your city, where our type of business will be profitable? Yours truly, (79)

Dear Sir: Your attention is called to an invoice that should have been paid in June. We cannot allow it to remain\*\* unpaid any longer. You have had plenty of time to make some arrangement to pay it. Please acknowledge this correspondence by sending us a remittance in full before December 6. Yours truly, (56)

Dear Sir: We are experiencing considerable difficulty in producing our new line of merchandise in sufficient quantity to fill all our orders without delay. Our new line has been well advertised in the 40 newspapers, and the public has responded beyond our expectations by sending in orders from all parts of the country. We are ever trying to improve the quality of our goods and our prices are always moderate. We are sure that you will appreciate our condition and be reasonable, as you have been on other 100 occasions. Yours truly, (104)

Dear Sir: I have just received your letter dated January 28, in which you inquired about the real 20 power of the committees appointed by the officials of your company. I cannot give you the necessary information to solve this problem, but suggest that you communicate with the manager in charge of such affairs in your part of the country. I shall inform you if I hear anything about changing the odefinite powers of committees for the fall season. Yours very truly, (93)

Dear Sir: In the course of a day or two I shall see the man about whom you inquired in your correspondence of last 30 week. If he is unable to stop in your city on his trip to the eastern states, I will ask him to communicate<sup>40</sup> with you immediately. We are of the opinion that he is directly responsible for the the other salesmen in this section of the country. His contract is proof of that fact. If he fails to acknowledge your to letters, please wire me at the above address. truly yours, (91)

Dear Sir: The young man about whom you inquired is a thoroughly responsible person, in my opinion. Iso am sure that he will carry on the good work with his usual skill. As I remember, he was the type of 40 individual who could always be trusted to complete every task. Sincerely yours, (56)

Dear Sir: We regret very much indeed that we were forced to return the imperfect goods you recently shipped us. We know that your object is always to give nothing but perfect goods of the right kind, and as this merchandise was40 not altogether in accord with our wishes, we were obliged to send it back. Will you please have our next shipment thoroughly inspected both as to quality and quantity. Very truly yours, (75)

Gentlemen: The charges against our officials came to my attention this morning. These charges are of a rather serious nature and will be given immediate consideration. Any other knowledge concerning40 the various deals of these officials should reach our organization immediately. It is strange that 60 the truth of this matter has never been told before. We realize, nevertheless, that such a course of action so as has been given in the newspapers is bound to occasion some com-ment by other organizations. We<sup>100</sup> are pleased with the stand you have taken and shall do everything in our power to coöperate with you. Very<sup>130</sup> truly yours, (122)

Dear Sir: What seems to be the matter

with our present system of public markets? We were of the belief that business<sup>20</sup> in this country has always favored such a system. Will you please let me have your opinion on the subject.<sup>40</sup> Yours truly, (42)

### A Little Journey to the Home of Sir Edwin Landseer

From "Little Journeys to the Homes of Eminent Painters"

By Elbert Hubbard

(Copyright, 1899, by G. P. Putnam's Sons)

Queen Anne Street, near Cavendish Square, is a shabby district, with long lines of plain brick houses built for revenue only. But Queen Anne Street is immortal to all lovers of art because it was the home of Turner; and within its dark, dull, and narrow confines were painted the most dazzlingly beautiful canvases that the world has ever seen. And yet again the street has another claim on our grateful remembrance, for at Number 83 was born, on March 7, 1802, Edwin Landseer.

The father of Landseer was an enthusiastic lover<sup>100</sup> of art. He had sprung from a long line of artistic workers in precious metals; and to use a pencil with skill<sup>130</sup> he regarded as the chief end of man.

Long before his children knew their letters, they were taught to make pictures. Indeed, 140 all children can make pictures before they can write. For a play spell each day John Landseer and his boys tramped across 160 Hamstead Heath to where there were donkeys, sheep, goats, and cows grazing; then all four would sit down on the grass before some chosen 180 subject and sketch the patient model.

Edwin Landseer's first loving recollection of his father went back to soo these little excursions across the Heath. And for each boy to take back to his mother and sisters a picture of so something they had seen was a great

joy.
"Well, boys, what shall we draw today?"
the father would ask at breakfast time.

And then<sup>240</sup> they would all vote on it, and arguments in favor of goat or donkey were eloquently and skillfully set<sup>280</sup> forth.

I said that a very young child could draw pictures: Standing by my chair as I write this line is a chubby little<sup>380</sup> girl, just four years old, in a check dress, with two funny little braids down her back. She is begging me for this pencil<sup>300</sup> that she may "make a pussy-cat for Mamma to put in a frame."

What boots it that the little girl's "pussy-cat" has so five or six legs and three tails—these are all inferior details.

The evolution of the individual<sup>\$40</sup> mirrors the evolution of the race, and long before races began to write or reason they made pictures.

Art\*\*\* education had better begin young, for then it is a sort of play; and good artistic work, Robert Louis\*\* Stevenson once said, is only useful play.

Probably Edwin Landseer's education began

a hundred years 600 before he was born; but his technical instruction in art began when he was three years old, when his father would 150 take him out on the Heath and placing him on the grass, put pencil and paper in his hand and let him make a picture 150 a goat nibbling the grass.

Then the boy noted for himself that a goat had a short tail, a cow a switch tail, and horses had no horns, and that a ram's horns were unlike those of a goat.

He had begun to differentiate and compare—and not yet four years old!

When five years of age he could sketch a sleeping dog as it lay on the floor better<sup>500</sup> than could Thomas, his brother, who was seven years older.

We know the deep personal interest that John Landseer see felt in the boy, for he preserved his work, and today in the South Kensington Museum we can see a series of sketches made by Edwin Landseer, running from his fifth year to manhood.

Thus do we trace the unfolding of his 560

That young Landseer's drawing was a sort of play there is no doubt. People who set very young children at tasks<sup>580</sup> of grubbing out cold facts from books come plainly within the province of the Society for the Prevention of Cruelty to Animals, and should be looked after, but to do things with one's hands for fun is only giving direction to the natural

Before Edwin Landseer was eight years of age his father had taught him the opposes of etching, and we see that even then the lad had a vivid insight into the character of animals. He drew pictures of pointers, mastiffs, spaniels, and bulldogs, and gave to each the right expression.

The Landseers owned several dogs, and what they did not own they borrowed; and once we know that Charles and Thomas 'borrowed' a mastiff without the owner's consent.

All children go through the scissors age, when they cut out of magazines, newspapers, or books 730 all the pictures they can find so as to add to the "collection." Often these youthful collectors have specialties: 740 one will collect pictures of animals, another of machinery, and still another of houses. But 700 usually it is animals that attract.

Scissors were forbidden in the Landseer household, and if the boys wanted pictures they had to make them.

And they made them.

They drew horses, sheep, donkeys, cattle, dogs; and when their father took them ot the Zoölogical Garden it was only that they might bring back trophies in the way of lions and tigers. 500

Then we find that there was once a curiosity exhibited in Fleet Street in the way of a lion 640 cub that had been caught in Africa and mothered by a Newfoundland dog. The old mother-dog thought just as much of 640 the orphan that was placed among her brood as of

her sure-enough children. The owner had never allowed the two880 animals to be separated, and when the lion had grown to be twice the size of his foster mother there "oo still existed between the two a fine affection.

The stepmother exercised a stepmother's rights, and occasionally chastized, for his own good, her overgrown charge, and the big brute would whimper and whine like a lub-berly boy.

This curious pair of animals made a great impression on the Landseers. The father and three boys sketched them960 in various attitudes, and engravings of Edwin's sketch are still to be had.

And so wherever in London animals were to be found, there, too, were the Landseers with pencils and brushes, and pads and palettes. In the back yard<sup>1000</sup> of the house where the

Landseers lived were sundry pens of pet rabbits; in the attic were pigeons; and dogs of various 1020 breeds lay on the doorstep sleeping in the sun, or barked at you out of the windows.

It is reported that John 1040 Landseer once contemplated a change of residence; he selected the house he wanted, bargained with the landlord, agreed as to terms, and handed out his card preparatory to signing a lease.

The real estate agent looked 1080 at the name, stuttered, stammered, and finally said, "You must excuse me, sir, but they say as how you are a dealer in dogs, and your boys are dog catchers! You'll excuse me—but—I just now 'appened to think the 'ouse is already took!" (1120)

(To be continued next month)

### Wealth from Cornstalks

From "Popular Research Narratives" Compiled by Alfred D. Flinn, of Engineering Foundation

(Copyright by the Williams and Wilkins Company, of Baltimore)

After the farmer has husked and shelled the corn to feed man and beast and has let the cattle and hogs eat what they will so of the cornstalks, there remain each year in the great American "corn belt" two hundred million tons of stalks. Can this 40 great agricultural waste be put to use?

Chemist and engineer have been working on this problem for years. It on now begins to appear feasible to put these raw materials to use on a large scale within a decade<sup>80</sup> or two and thus in time increase the gross annual income of the corn growers by a billion dollars. Industrial100 processes will add new values and the numerous useful products (some three hundred now seem possible) 120 would further increase the national wealth. It is a prize worth a lot of effort.

Before these many products of 140 promising usefulness could be made even on a small scale in the laboratory, years had to be spent in160 patient, ingenious, fundamental researches to determine the exact chemical and physical

natures of 180 these raw materials and their constituents. Not only agricultural, but also industrial and200 economic problems had to be solved with the aid of engineering research, supplementing the work of the 220 Much remains to be done.

Iowa State College, in the midst of the corn belt, has been a leader in 240 the attack. Knowledge being gotten in the cornfield will be useful also to growers of other grains, peanuts, 200 flax, and cotton, who have similar waste materials. Civilized men will be able to continue to 280 feed and clothe the increasing populace and to supply many of their other wants by successful solution of just these problems.

What does the laboratory offer to industry from these raw materials now wasted? 320 Paper of several grades, papier mâché, wallboard and other substitutes for building lumber, substitutes for hard woods used in furniture and finish, rayon, acetic acid, acetone, a sugar that can be sed by diabetics, maple sugar flavoring to be combined with cane or beet sugar to make "maple syrup," oxalic acid, plastic materials, electrical and heat insulation, and furfural.400

Furfural was a laboratory chemical not many years ago, scarce at fifty dollars a pound. Now<sup>420</sup> it is produced in large quantities at 14 cents. With increasing production, improved methods, and development440 of coproducts, even the latter price may be more than cut in half. Furfural is a fluid heavier460 than water, having many and various uses in plastics, dyes, paint removers, antiseptics, germicides, embalming fluids, 480 and motor fuels. It burns in lamps with a more brilliant flame than kerosene and has not the unpleasant odor of the latter.

If the chemist and engineer and farmer can solve the economic problems, new industries 520 may dot the prairies. Among these problems one of the foremost has been the cheap collection of the stalks and cobs to a few places where they will be subjected to the first steps toward becoming saleable commodities. Special500 machines have been devised for gathering up the cornstalks on the field, and for cutting the standing corn, husking 500 the ears and shredding the stalks. Another problem is the safe and inexpensive storage of raw materials 600 throughout the year, in order that the industrial operations may be continuous.

As contrasted with 630 forests, which, once cut, are not quickly replaced, and commonly in America are not replaced at all, the corn 640 wastes would be produced year after year in great quantities within the same areas. As near-by forests have been 660 consumed, for example, the saw mills and pulp mills have had to remove to more and more remote locations from their 680 markets.

Lest the corn production should decrease, the fertility of the soil must be maintained. It has been learned that this can readily be done by growing soy beans as the "rotation" crop. The soy bean is a strong nitrifier 720 of the soil. After extracting the oil from the bean, the refuse, including the stalks and meal, can be plowed back into<sup>740</sup> the soil. The income from the oil, which has many uses, will partially offset the lack of income from corn in<sup>760</sup> the years of change of crop. Thus the cycle would become complete by the chemistry of nature, and the energy<sup>780</sup> of the sun would be converted perennially to many uses of man.

Depletion of forests and of one mineral resources and advances in chemistry and engineering have much to do with the measures of success which may be achieved in turning these agricultural wastes into wealth. At best, it will take much time, research, and

development.

More than research and engineering and industrial development and financing on will be required. Useful and valuable new commodities may be produced, but successful production at on a fair price may not bring economic success. It has well been said: The fight for recognition for a new product of is almost as hard to wage as is the fight for a new idea. (916)—Contributed by O. R. Sweeney, Professor of Chemical Engineering, Iowa State College, Ames, Iowa.

### Key to the February O.G.A. Test

People often say that they cannot find time to improve themselves by reading and studying. We may not "find time," but we

can "make" time.

If one man with the weight of a kingdom on his mind, thought it necessary to make time to<sup>40</sup> improve himself, always carrying a book in his pocket, lest an unexpected spare moment slip from his grasp, to<sup>60</sup> what should we common mortals not resort to save the precious moments?

There are few of us who lead such busy lives that we cannot spend at least a few minutes, half an hour or an hour out of the twenty-four for the mind's improvement.

(102)

### Curious Clippings

Down at Melrose, Massachusetts, we are told, they blame a bird for setting fire to the city hall. It picked up a lighted cigarette, carried it to its nest beneath the eaves of the building, and—it wasn't a cooked goose, either. We're betting it was a Baltimore oriole! (49)

And speaking of fires—here's a queer one from Missoula, Montana: During a three-day fire in the Freeman Lake region<sup>20</sup> of the Kanikau national forest, Edward Dailey buried his wife and two children in a potato<sup>40</sup> patch, covering them with earth and wet sacks. Next morning he dug them out, none the worse for their experience. (59)

1 1

The prize Boa Constrictor of the London Zoo has gone and gotten himself a glass eye! The surgeon of a London hospital fitted the

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New York Chicago Boston San Francisco eye, and his patient is now "not only quite well but quite good to look at." (38)

### 1

A hollow chestnut tree with a hole six feet above ground—a spring beneath—and Grass Valley, California, has<sup>20</sup> a Gargantuan natural hydrant! (27)

### How Banks Help Business

Issued by the Public Education Commission of the American Bankers' Association, New York City, N. Y.

A vast majority of the business transactions taking place every day are handled on a credit basis.<sup>20</sup> This simply means that money, or goods, or the services received today are to be paid for, by mutual40 agreement, at some definite future time. For example, we buy groceries several times each month with-out <sup>60</sup> paying for them at the time of purchase. Instead, we pay at the end of the month when the grocer sends his bill. Weso also use electricity, gas, and the telephone on credit, paying what we owe the various companies100 when the monthly bills arrive. A little different form of credit is utilized when we buy automobiles, 120 furniture, radios, and the like on the installment plan, for in purchases of this character we are allowed several months' time in which to make good our promise to

The reason these various concerns can grant<sup>160</sup> you credit for a month or more is because they in turn are able to obtain credit from a bank, or from wholesalers, jobbers, or manufacturers, or from both sources.

A lumber dealer who furnishes the lumber required200 for building a house may allow the builder or contractor a given time in which to pay the bill. The lumber 930 dealer himself may have bought on credit from the wholesaler, and the latter may have bought the lumber on credit<sup>240</sup> from the mill. In such a case the lumber mill very likely has obtained a loan from the bank, so that after soo all, the source of credits that have been extended all along the line is a commercial bank.

When the house is sold, 280 the builder pays his debt to the retail lumber dealer. The latter can then pay the wholesaler, he can pay the 300 mill, and the mill can pay off the loan which it obtained from the bank. This illustration serves to explain what is meant see when we say that this is an age of credit, and that credit, or the use of credit, keeps the wheels of trade and commerce<sup>340</sup> moving.

As helpful as the use of credit is when a business man's affairs are moving along smoothly, it so is a real life-saver when difficulties arise. For various reasons, it is frequently impossible 880 to keep products flowing in a steady stream from forests, mills, ranches, and farms through the hands of manufacturers400 and distributors to the individual consumer. Sometimes a long spell of bad weather hinders both 420 production and distribution.

Perhaps a strike will have the same effect. These and other difficulties sometimes440 cause raw materials or finished products to be accumulated in unusual quantities, thus cutting400 down the normal revenue which the owners would receive from the immediate sale of their goods. Sometimes a 480 business depression or what is termed "hard times" causes products to be kept for months in warehouses and on the 600 merchants' shelves. It is under circumstances like this that the extension of credit, or the making of loans by bankers, is more than usually helpful and beneficial to all—is, in fact, a real necessity. 640 For even though the business man's earnings are temporarily reduced or curtailed, he must continue to pay 500 the salaries of his employees and his rent, and he must pay his taxes and meet other obligations without 680 delay. The bank helps him to do these things. (588)

### Short Stories in Shorthand

### False Alarm

Jimmy: Last night I woke up all of a sudden and thought my wristwatch was gone.

Johnny: Was it? Jimmy: No, but it<sup>20</sup> was going. (22)

### Where Was He, Then?

"I spent last summer in a very pretty city in Switzerland."
"Berne?"

"No, I almost froze." (16)

### Only a Beginner

Smith is learning shorthand, and his wife is very proud of the fact.

"Henry, can you write as quickly as I talk?" "As " quickly, dear, but not for so long." (26)

### He Should Know!

General: Why are you not more careful? Army Clerk: What do you mean, sir?

General: Why, instead of addressing of this letter to the intelligence officer, you have addressed it to the intelligent officer. You should 40 know that there is no such person in the army. (49)

### Not So Dumb

Suspected of being mentally deficient, a schoolboy was asked by a psychologist:
"How many ears has" a cat?"

"Two," the lad replied instantly.

"And how many eyes has a cat?" "Two.

"And how many legs has a cat?" The boy looked at him suspiciously.

"Say," he inquired, "didn't you ever see a cat?" (54)

### The Comeback

Salesman: These shirts simply laugh at the

Customer: I know. I've had some come back with their sides split. (18)

### A Teaching Plan for Chapters X to XII

(Concluded from page 341)

### GREGG SPEED STUDY XV

Period Assignment

37 Letters 117-122. Prefixes: contr, constr, agr, multi. Suffixes: scribe, spect.

Letters 123-127. Prefixes: over, circu, under. 39 Article 128. Prefix: inter. Suffixes: mental, ical,

bility, ward.

Letters, pp. 238-239 (to be written in shorthand). Prefixes: ant, Mc. Suffixes: logy, egraph, stic. Test on Unit 29: Progressive Exercises 29. Gregg Writer Transcription Test.

### GREGG SPEED STUDY XVI

Period

Assignment Letters 129-134. Prefixes: incl, over, self. Suffixes: mity, gram, ual, sult.

Letters 135-139. Prefixes: decl, centr, distr, grand. Suffixes: fication, tual.

Article 140. Prefixes: constr, enter-inter, under. Suffix: mental. Tests on Units 32 and 33: Progressive Exercises 32 and 33.

Letters, pp. 252-253 (to be written in shorthand). Suffixes: ulate, city, putation. Gregg Writer Transcription Test.

### GREGG SPEED STUDY XVII

Period

Assignment

- 45 Letters 141-144. Prefixes: electr, instr, agr. Suffixes: flict-flect, ulate, quire.
- Letters 145-149. Prefixes: inter, over. Suffixes: bility, nity.
- Articles 150-151. Prefix: short. Suffixes: ical, rity, ture.
- 48 Letters, pp. 265-266 (to be written in shorthand). Gregg Writer Transcription Test. Review Manual, Chapter XII.

### GREGG SPEED STUDY XVIII

Period Assignment

- 49 Letters 152-155. Prefixes: instr, circu, trans. Suffixes: tic, scribe.
- Letters 156-161. Prefixes: detr, over, under. Suffixes: lity, position.

Articles 162-163. Prefixes: circum, super. Suffixes: rity, ward, mental.

52 Letters, pp. 280-282 (to be written in shorthand). Prefixes: excl, intr, post. Suffixes: jure, sult. Gregg Writer Transcription Test.

### GREGG SPEED STUDY XIX

Assignment

- 53 Letters 164-168. Prefixes: centr, extr, inter, post. Suffixes: fication, gram.
- Letters 169-171. Prefixes: decl, short. Suffixes: mity, usive.
- 55 Article 172. Prefixes: self, ship. Suffixes: tient, sult.
- 56 Article 173; Letters, pp. 295-297 (to be written in shorthand). Prefixes: contr, excl. Suffixes: tic, lity, rity, ure. Gregg Writer Transcription Test.

### GREGG SPEED STUDY XX

Period

Assignment

57 Letters 174-176. Gregg Writer Complete Theory and Transcription Tests.\*

\* Some teachers will wish to use the Writing Practice given at the close of Chapters X, XI, and XII of both the Short-hand Manual and "Gregg Speed Studies" as part of their testing program during the last week of the theory course.

58 Letters 177-181. Gregg Writer Complete Theory and Transcription Tests.

Article 182. Gregg Writer Complete Theory and Transcription Tests.

60 Article 183; Letters, pp. 311-314 (to be written in shorthand). Gregg Writer Complete Theory and Transcription Tests.

1 1 1

State Teachers' Meetings

 $T^{HE}$  annual meeting of the Ohio Business Schools Association was held on Saturday, February 4, at Columbus. President T. P. Davis, Davis Business College, Toledo, presided at the sessions.

Proposed school legislation, placement, and school administration were among the topics claiming special consideration. The guest speaker was Dr. W. O. Thompson, President Emeritus, Ohio State University, his subject being "Business Schools in Education."

The newly elected officers of the Association are:

PRESIDENT: S. E. Hedges, Canton-Actual Business College, Canton

VICE PRESIDENT: F. J. Miller, Tiffin Business University, Tiffin

SECRETARY: C. A. Neale, Hammel Business University, Akron

TREASURER: J. T. Thompson, Steubenville Business College, Steubenville

 $T^{HE}$  Commercial Department of the Oklahoma Education Association met at Tulsa, Oklahoma, February 3, with Miss Vera B. Neel, Central High School, Oklahoma City, in the chair, at the general meeting. The Round Table discussion on Shorthand and Typewriting was led by Miss Margaret O. Brashear, Gregg College, Chicago; on Bookkeeping, by C. Guy Brown, Central High School, Oklahoma City. The following speakers were heard:

Dr. Harry W. Gowans, Director Personnel, Tulsa-"Teacher Personality"; Mabel McCallum, Central High School, Tulsa-FIRST PLACE ORATION IN OKLA-HOMA; Dr. Paul A. Carlson, Director Teacher Training, State Teachers College, Whitewater, Wisconsin-THE OUTLOOK FOR COMMERCIAL EDUCATION; Katherine Olive Bracher, Director of Typewriting, Gregg Chicago-Typewriting TECHNIQUE AND SKILL; H. S. Miller, Director of Business Education, East High School, Wichita, Kansas-Report on the INTERNATIONAL CONGRESS ON BUSINESS EDUCATION, London, England.

### New Officers:

PRESIDENT: Edith White, Director of Business Education, Tulsa Public Schools

VICE PRESIDENT: Kate Frank, Central High School, Muskogee

SECRETARY: Lenna Lawson, High School, Wewoka

Date and Place of Next Meeting: Oklahoma City, February, 1934.